A. R. E. A. CONVENTION NUMBER

MAR 2 0 1947

Transportation Library

MARCH 15, 1947

Editorial Contents, page 47

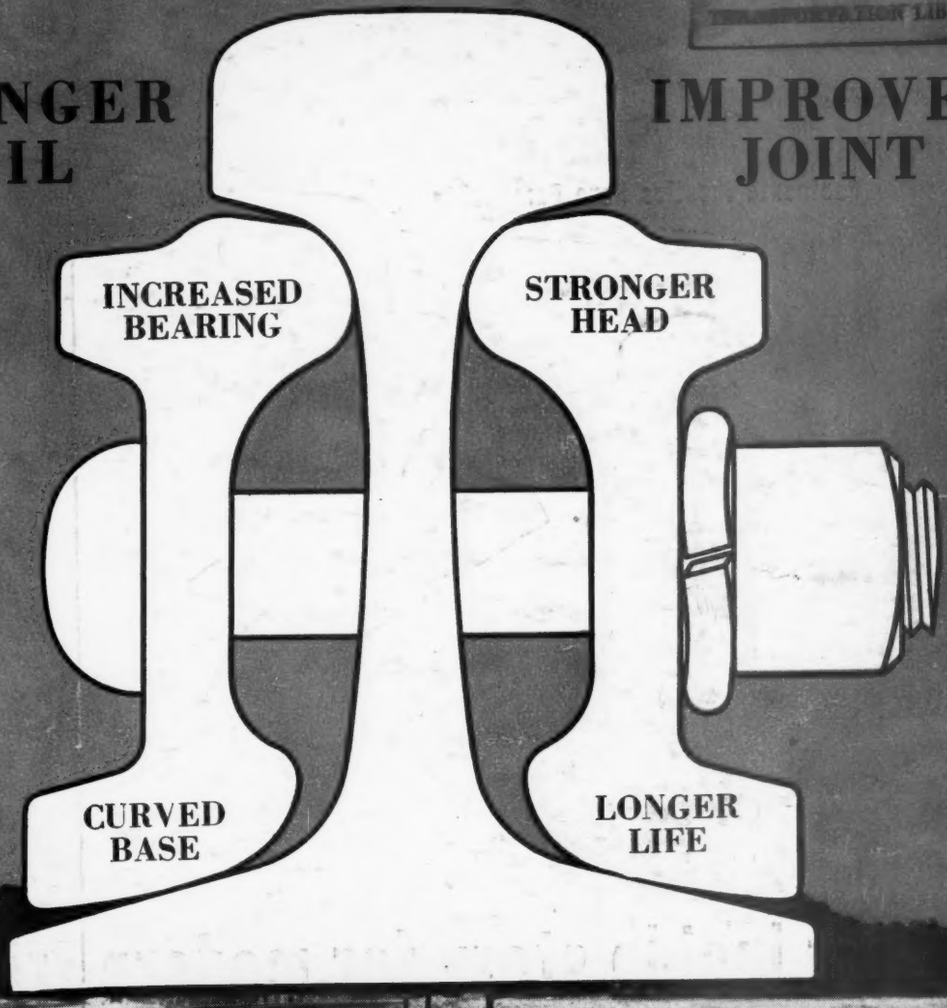
Railway Age

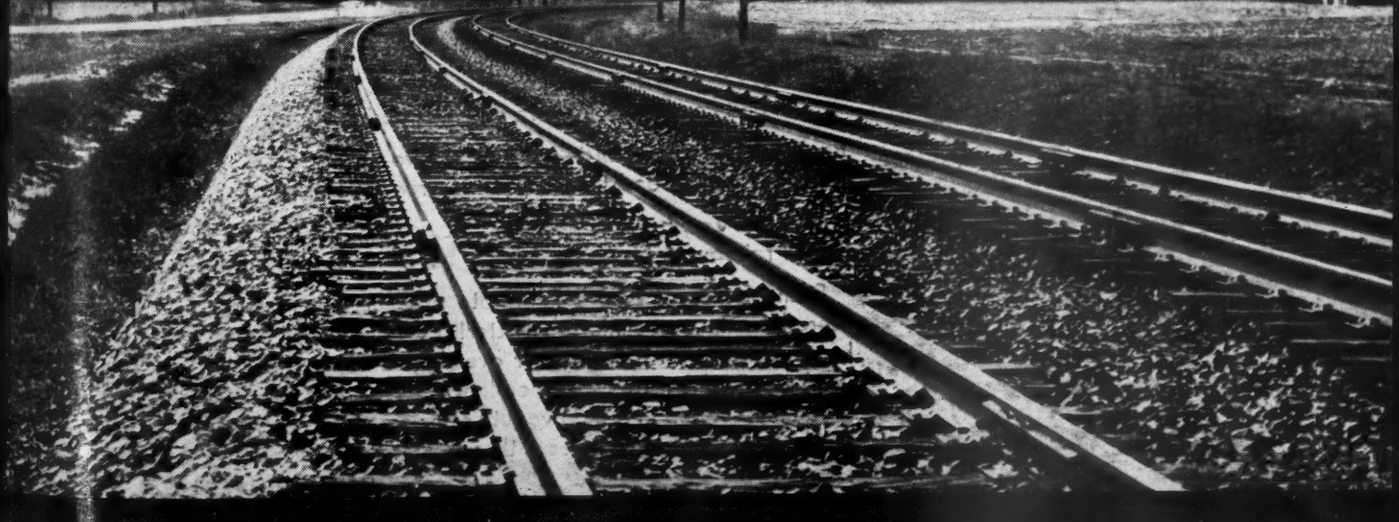
Founded in 1856

TRANSPORTATION LIBRARY

STRONGER RAIL

IMPROVED JOINT

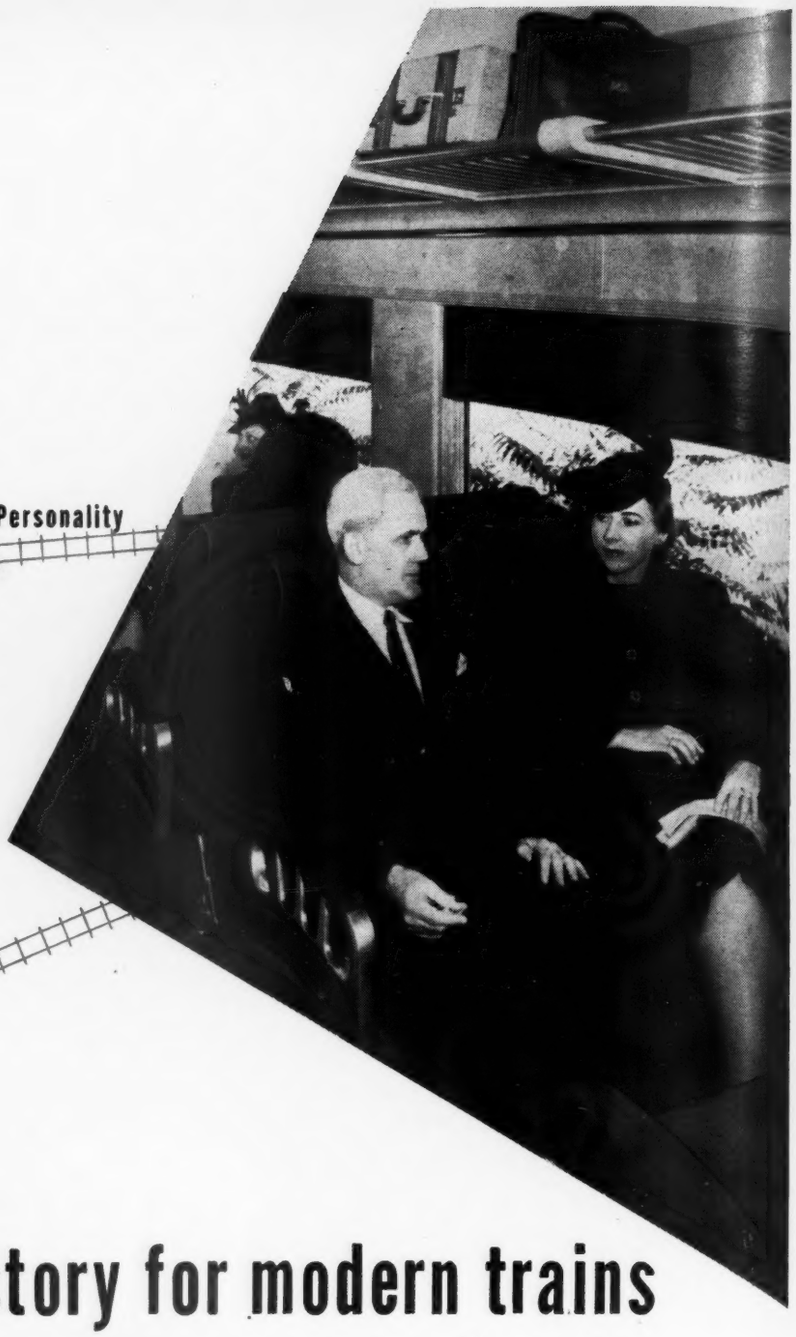




THE RAIL JOINT COMPANY Inc.

50 CHURCH ST. NEW YORK 7, N. Y.

Pantasote Plastics Have Personality



The best inside story for modern trains

Pantasote Upholstery—Pantasote's new plastic upholstery adds sparkle and comfort to modern railway interiors.

Pantasote Car Curtains—made from two laminated fabrics to prevent wrinkling and to give added strength, longer wear.

Pantasote Vestibule Curtains—for cleaner, brighter, well-protected railway vestibules.

Each of these 3 superb Pantasote products have been engineered to do a specific job better! That's why Pantasote has been standard on railroads for over half a century. Pantasote Products age well, remain good-looking year after year. They are manufactured in a wide variety of colors, grains and finishes. A whisk of a damp cloth keeps them bright and new.

The Pantasote Corporation of N. J. 444 Madison Avenue, New York 22, N. Y.

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 50 cents each. Vol. 122, No. 11.

Railway Age

With which are incorporated the Railway Review, the Railway Gazette, and the Railway-Age Gazette. Name registered in U. S. Patent Office.

Vol. 122 March 15, 1947 No. 11

PUBLISHED EACH SATURDAY BY THE SIMMONS-BOARDMAN PUBLISHING CORPORATION, 1309 NOBLE STREET, PHILADELPHIA 23, PA., WITH EDITORIAL AND EXECUTIVE OFFICES AT 30 CHURCH STREET, NEW YORK 7, N.Y., AND 105 W. ADAMS STREET, CHICAGO 3, ILL.

WASHINGTON 4, D. C.: 1081 NATIONAL PRESS BUILDING—CLEVELAND 13: TERMINAL TOWER—SEATTLE 1: 1038 HENRY BUILDING—SAN FRANCISCO 4: 300 MONTGOMERY STREET, ROOMS 805-806—LOS ANGELES 14: 530 WEST 6th STREET—DALLAS 4: 2909 MAPLE AVENUE.

SAMUEL O. DUNN, CHAIRMAN. JAMES G. LYNE, VICE-PRESIDENT—ASSISTANT TO CHAIRMAN. HENRY LEE, PRESIDENT. ROY V. WRIGHT, VICE-PRESIDENT AND SECRETARY. C. MILES BURPEE, F. H. THOMPSON, F. C. KOCH, R. E. THAYER, H. E. McCANDLESS, S. WAYNE HICKEY, VICE-PRESIDENTS. J. T. DeMOTT, TREASURER. RALPH E. WESTERMAN, ARTHUR J. McGINNIS, ASSISTANT TREASURERS.

SAMUEL O. DUNN, EDITOR. JAMES G. LYNE, ASS'T TO EDITOR. ROY V. WRIGHT, MANAGING EDITOR. NEAL D. HOWARD, WESTERN EDITOR. C. B. PECK, ALFRED G. OEHLER, E. L. WOODWARD, J. H. DUNN, H. C. WILCOX, CHARLES LAYNG, WALTER J. TAFT, M. H. DICK, W. H. SCHMIDT, Jr., C. L. COMBES, C. B. TAVENNER, MAURICE PEACOCK, FRED W. SMITH, SHERMAN DAVIS, FRED C. MILES, WALTER L. TURNER, Jr., G. J. WEIHOFEN, GEORGE JOHNSON, HENRY E. MICHAEL. LIBRARIAN: EDITH C. STONE. EDITORIAL ASSISTANT: ELAINE C. FARRAR.

C. MILES BURPEE, BUSINESS MANAGER.

SUBSCRIPTIONS INCLUDING 52 REGULAR WEEKLY ISSUES, AND SPECIAL DAILY EDITIONS PUBLISHED FROM TIME TO TIME IN NEW YORK OR IN PLACES OTHER THAN NEW YORK, PAYABLE IN ADVANCE AND POSTAGE FREE. UNITED STATES, U. S. POSSESSIONS AND CANADA: 1 YEAR, $6.00; 2 YEARS, $10.00; OTHER COUNTRIES NOT INCLUDING DAILY EDITIONS: IN WESTERN HEMISPHERE 1 YEAR $10.00; 2 YEARS $16.00; OTHER COUNTRIES 1 YEAR $15.00; 2 YEARS $25.00. SINGLE COPIES, 50 CENTS EACH. H. E. McCANDLESS, CIRCULATION MANAGER, 30 CHURCH STREET, NEW YORK 7.

In This Issue

Page

Big Events Planned at Chicago by A.R.E.A. and N.R.A.A. ***536***

Three-day meeting to be held March 18-20 by the American Railway Engineering Association. The exhibition of the National Railway Appliances Association will be the largest by this group for twenty years.

Maintenance and Construction Forces Plan Large Budgets for 1947 ..... ***538***

Uncertain business conditions, high prices and shortages of materials tend to hold down work in sight, but expenses will rise. Results may prove more favorable than outlook.

Suggests I. C. C. Rolls Dice to Decide Reorganization Cases ***561***

A significant discussion of some fundamental problems of conduct by administrative agencies.

EDITORIALS

The Function of the A.A.R. 527
Fixed Properties May Get a Break in 1947 528
Diesel Design for Reduced Maintenance 529

GENERAL ARTICLES

Trends in Railway Passenger Car Design, by E. D. Campbell.. 530
Post-Mortem on Poorest Earning Year Since 1940..... 533
G. P. McNear, T. P. & W. Head, Dies from Gun-Shot Wounds.. 535
Big Events Planned at Chicago by A.R.E.A. and N.R.A.A..... 536
Maintenance and Construction Forces Plan Large Budgets for 1947 538
The Railroads and Robert R. Young Are Peglerized..... 560
Suggests I. C. C. Rolls Dice to Decide Reorganization Cases.... 561

NEW AND IMPROVED PRODUCTS **543**
NEW BOOK **562**
GENERAL NEWS **563**
WITH THE GOVERNMENT AGENCIES **568**
OPERATING REVENUES AND EXPENSES **581**
REVENUES AND EXPENSES **582**

Railway Age is a member of Associated Business Papers (A. B. P.) and Audit Bureau of Circulation (A. B. C.), and is indexed by the Industrial Arts Index and by the Engineering Index Service.

★

PRINTED IN U. S. A.

Insure Continuity of Signal Service

despite adverse weather conditions!

RAIL-TRANSMITTED SIGNAL CONTROLS

WHERE "Union" Coded Track Circuit Control has been installed in territories that are subject to severe snow and sleet storms, both operating and signal officers have a keen appreciation of the value of rail-transmitted signal controls in maintaining normal train operation during adverse weather conditions.

This modern system utilizes coded track circuit current to control wayside signals alone or both wayside and cab signals and thereby eliminates entirely or greatly reduces the number of line wires required . . . and since continuity of power for the signal system may be made independent of the commercial source, pole line failures do not seriously affect train operation. See our Bulletin 157 for details!

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

New York Chicago St. Louis San Francisco

RAILWAY AGE

The Function of the A. A. R.

The severest critic of the Association of American Railroads, Robert R. Young, has conceded that the companies he controls, and which have withdrawn *pro forma* from the association, nevertheless need 83½ per cent of the service (excepting advertising and "public relations") which the A.A.R. provides for the railroad industry. That is to say, the Young-controlled railroads continue to participate in all such little-publicized A.A.R. activities as car service, accounting, and the mechanical and control arrangements necessary for equipment interchange. A rating of 83½ per cent is well above the "passing" requirement in almost any kind of examination; and, when such an evaluation is conceded by so critical an examiner as Mr. Young, it is a mark of which the recipient is entitled to take pride.

Unheralded Achievements

The faults and failures of the A.A.R., actual or merely alleged, have been widely proclaimed. The organization is often misrepresented (as, for instance, by the frequent assertion of leftish politicians that the entire A.A.R. budget represents railroad expenditure for "propaganda and lobbying"). Its sound accomplishments are little known. Very few of the public, for example, aside from professional traffic men, realize that the railroads could not interchange cars and act as a single continental system of transportation without the services of the Association of American Railroads. How many Americans know that the railroads were able to handle in the recent war an increase of 98 per cent in freight traffic over the pre-war level, as compared to only 12 per cent in World War I; and that this tremendously improved performance was due almost entirely to a system of carrier-shipper cooperation of almost miraculous effectiveness, which was elaborated in the inter-war years by the Car Service Division of the A.A.R.?

Despite this record of accomplishment the A.A.R. is constantly and severely chastened by self-criticism. Most of this internal criticism involves the same phases of the association's work which have been the targets of "outside" critics—i.e., "public relations," legislative effort, and "research." Specific pieces of advertising "copy" are attacked as insufficiently pointed to achieve tangible results. Or "public relations" and legislative representatives are chided because such a measure as the Crosser Act is adopted, with comparatively little effort having been made to acquaint popular opinion with its demerits. Or, as has been frequently contended, some phase of the railroads' economic or technological problems are being inadequately "researched."

Such specific criticisms occur too often to be merely fortuitous; they are undoubtedly symptomatic of a basic difficulty. The association is under attack in the courts for alleged violation of the anti-trust law, and the uncertainty of its legal position may accout in some measure for its failure to engage as fully in all the activities proper to such an organization as some would wish. That consideration apart, is there not a tendency on the part of most railroad men to expect the A.A.R. to occupy fully the entire field of "railroad statesmanship" except that limited part which is reserved by the individual railroads and the regional associations?

A Structural Weakness

But has the association had a delegation of authority commensurate with the work which, apparently, most railroad men expect it to do? From the point of view of industry policy in its relations with government and public, hasn't the A.A.R. had an assignment which might be compared to that of running a railroad division on "smoke signals," with no book of rules, no timetable, and no dispatchers; with no dependable supply of water and fuel; and with the trainmaster required to take a vote of the section hands before he may instruct a train to proceed?

We are not referring to agreements about service standards or other activities to which the Justice Department or Mr. Young might take exception, but to such questions as (1) the education of government and the public in the elementary economics of transportation finance, labor and competition; and to (2) research in market, economic, management, technological, and personnel problems. The A.A.R. has recently been severely

criticized by some of its members for alleged neglect by its public relations staff to do a comprehensive job with item (1)—but few of the critics stopped to inquire, first, whether the A.A.R. had actually been given the authority to undertake so large an assignment. As for item (2), the association's Committee for the Study of Transportation has initiated a broad and effective research program—but this committee has acted under only a temporary grant of authority; and present indications are that it will shortly be allowed to die. It is as if a farmer were laboriously to clear a field of stumps, plow it, and raise one highly profitable crop; and then let the field go back to jungle again.

The problem is plainly one of organization: Who is responsible for what? As promising a means as any of answering this question might be to name a small committee of intelligent and critical chief executives—preferably younger men, since they would have the greatest personal interest at stake in making a success of the job—giving them the duty of studying the A.A.R. tasks where criticism has most frequently arisen; and of recommending new definitions and divisions of power and responsibility necessary to correct the conditions which have occasioned the criticism. Such a committee would doubtless find it profitable to observe the organization methods of other industry associations and to employ expert help to make available all useful experience and sicentific knowledge in this field.

This committee might properly be asked to canvass *all* the varieties of "statesmanship" problems with which the railroad industry is confronted—including customer, public, legislative, and employee relations; and the whole field of necessary and desirable "research" (in public opinion and markets and personnel, as well as economic and technological problems) — not desisting from its labors until it is prepared to recommend a definite person or department to which each type of these problems could be definitely assigned. The committee might well also be asked to offer suggestions for a logical division of "statesmanship" duties as between the A.A.R., the regional associations, and the individual companies.

Positive Action the Effective Answer

Mr. Young has put forward his Federation for Railway Progress as, to some degree, a rival of the A.A.R. It is difficult to see how this can actually be so—because the federation aims to include in its membership the general public, the labor unions, railway stockholders, shippers, and supply manufacturers. An association including these "outside" elements could not possibly speak with authority for the railroad industry. If the President of the United States in a time of military emergency should wish to know how well prepared the railroads were to meet it, he would not be likely to get satisfactory answers to his questions by phoning Edward Stettinius or Mrs. Henry Luce. The federation, if wisely and constructively led, can do a greatly needed service for the railroads and the nation—but it cannot replace the A.A.R.

This paper has already indicated its belief, which coincides with that of most of its readers, that some of Mr. Young's criticisms of the railroads and of the A.A.R. have been justified and that others have not been. The best answer to all such criticism, however—factual or not—is to improve the A.A.R. organization wherever possible, until it equals or surpasses in efficiency any other industry association in the country. This should be done, of course, quite apart from the "gadfly" incentive which Mr. Young has provided. But his criticisms cannot be merely ignored because, if they continue, one of these days they may destroy much of the good opinion which the railroads won for themselves by their performance during the war. The most effective way to meet such criticism is with a program of positive action and positive statement which has more appeal to public interest than criticism, and removes the occasion for it.

There exists in the railroad industry, or easily available to it, all the intelligence, courage, skill, and energy necessary to deal with this or any other situation. It is just a matter of effective organization. If the engine is going to get up steam, the fire has to be built in the firebox and not in the tender tank; and the sand must go into the sandbox rather than on the bearings.

Fixed Properties May Get a Break in 1947

Everyone on the railroads knows that the fixed properties are not all they should be—that large programs of construction and maintenance must be undertaken if the roads are to catch up and keep pace in the highly competitive situation that lies ahead. But when this work is to get under way on an adequate scale has been far from clear—is still anything but certain—although the prospects are brighter for an earlier start than many had anticipated.

That the railways have a large backlog of such work is in no wise to their discredit, nor should it be surprising in view of the beating taken by the properties during the war years. Many of the improvements made at large expense during the war to meet the special needs of war traffic are of little or no value now, under the widely changed requirements of peacetime operation. Furthermore, the post-war plans of most roads for rapid revitalization of their properties have bogged down under the impact of labor strife, low net earnings and continued shortages in essential materials.

Even at the recent turn of the year there were few engineering and maintenance officers who held out much prospect that 1947 would bring forth the start long looked for. There were still too many uncertainties ahead. However, by late January and early February, although much pessimism, or conservatism, still prevailed, many of the budgets then being prepared began to reflect some hope. In fact, indications at that time, based on information furnished to *Railway Age* by a sizable number of representative roads, and reported in this issue, were that the railways of the United States and Canada, as a whole, would spend approximately $1,287,000,000 for improvement and maintenance of their fixed properties during the year, or more than they planned to spend at this time a year ago.

And, conceivably, these budgeted expenditures, born

largely of an uncertain outlook, may be even larger if the national industrial and economic picture continues to brighten—and it has brightened unmistakably in several important respects in recent weeks, to mention only the March 6 Supreme Court decision in the "Lewis" case, the continuing heavy freight traffic, and indications that the bottleneck in the supply of many construction materials is beginning to break. In fact, several roads are already considering revising their construction and maintenance budgets upward, indicating that they are on their toes, and ready to jump into their work programs with both feet just as soon as economic conditions will permit. Engineering and maintenance officers should be ready to do their part—ready with designs, plans and specifications; ready with their organizations or other agencies that may be involved in the work; and ready and determined to get started with the "gun," to accomplish in the months ahead the maximum amount of constructive work possible.

In their efforts they should make use of every technological development and improvement that recent years have afforded in materials and machines—and there have been many—witness the descriptions of some fifty new and improved products of specific interest to the construction and maintenance forces elsewhere in this issue. Whatever the size of the work programs undertaken, only the maximum effective use of the best materials, tools and equipment will yield the most satisfactory results, with the greatest efficiency and economy.

Diesel Design for Reduced Maintenance

Diesel motive power, while still relatively young in American railway service, is a lusty infant which promises to become a still more important, if not the dominant, factor in moving trains when it comes of age. With increased opportunity comes responsibility, and now is the time for Diesel locomotive designers and builders to consider how this type of motive power can best be made to render maximum service at mininum cost in the years to come.

Obviously, primary emphasis must be placed on sound principles of design and construction to assure desired locomotive performance in terms of capacity, reliability and economy. Maximum standardization consistent with full encouragement and use of all real improvements in a rapidly-changing new art will facilitate building locomotives on a quantity production basis at reduced unit cost, and also save the railroads a tidy sum in smaller inventories of repair materials which must be carried in stock. Further refinements in design to simplify and reduce the work of servicing and maintaining Diesels will also add greatly to the *net* value of this type of motive power in railway service.

This last feature was covered specifically and in considerable detail at a constructive meeting of the A. S. M. E. Railroad Division in New York last December. Everyone familiar with the facts knows that present Diesel locomotives are by no means perfect, and the discussion by experienced railway officers at this meeting brought out a number of definite suggestions for improving the performance and reducing the cost of maintaining Diesel motive power.

Among other recommendations, the following were mentioned: Exclusive use of welded instead of cast-steel crank cases; easier and quicker means of draining and filling crank cases; increased radiator size and cooling-water capacity for effective cooling under full load or in high altitudes; filtered engine-room air, with ventilators or scoops in the roof to give more air for cooling; improved cooling-fan bearings; electrically-driven air compressors of improved design to prevent valves carbonizing and sticking; design of engine bases, roof hatches, mountings and related parts to permit the application of later improved engines, generators and control equipment.

A number of other features were strongly urged including: Larger fuel- and water-tank capacity to provide for longer runs up to 800 miles for fuel and 500 miles for water; steam generators of improved design and increased capacity; interchangeable trucks and truck parts such as wheels, axles, drive gears, journal boxes, bearings, springs, air ducts, brake rigging, pins and bushings; improved sand-box and delivery-pipe design; standardized front-end windshield glass and mountings, also door and window glass; use of manually operated, counterbalanced drop couplers, or special doors covering standard couplers, instead of the retractable type.

Judging from discussion at the meeting referred to, there is still room for improvement in Diesel locomotive design from the standpoint of inspection and cleaning, as well as repairs. The use of numerous screws or bolts in covers which must be removed periodically is a great irritation and time consumer and the same may be said of inaccessible main engine blowers, electro-pneumatic controls and other parts, some of which cannot be removed as units because doorways or hatch openings are too small.

For adequate cleaning in the short turn-around time usually available, hand cleaning must be largely replaced by modern methods, including mechanical washers and spray equipment. Use of the latter in particular is precluded or rendered ineffective by such conditions as unshielded motor ventilator openings and the maze of tanks, pipes, conduit and other parts under the locomotive frames where oil and dirt accumulate and constitute a fire hazard if not removed. In the interests of safety, as well as appearance and generally satisfactory operation, it will apparently pay to review all important Diesel locomotive details and see what changes may be made to facilitate cleaning the locomotive bodies, inside and out, underframe parts and the trucks.

COMMON SENSE ON THE CAR SHORTAGE—The Timken Roller Bearing Company, in advertising in the daily papers, draws public attention to the serious effects on the national welfare of the railroad car shortage—especially that of box cars. It mentions the several palliatives being pursued to mitigate the evil effects of the shortage, but concludes that there is only one real and lasting way to relieve it, namely, by producing more cars.

American Car & Foundry design

High-speed double-ender inter-city train

Trends in Railway Passenger Car Design

What the railroads and builders are doing to meet the challenge of competition, with some predictions of things to come

By E. D. CAMPBELL

Vice-President in Charge of Engineering
American Car and Foundry Company

THE railroads face the biggest passenger business of their history. They will need approximately 15,000 passenger-train cars.

Air and bus competition need not be considered serious. The railroads have a market as big as they care to make it. It only requires merchandising. We have learned something about that in the past ten years—the decade of the streamliner. The formula is one known to business for a long time. Find out what the public wants and give it to them—in an attractive package.

In achieving light weight, and because of the fact that passenger comfort demands more and more in the way of electrical and air-conditioning equipment (thus adding to the weight), most of the new cars employ materials that combine strength with physical characteristics above that of mild steel of the same section.

These materials are low-alloy, high-strength steels, stainless steels and aluminum alloys. A breakdown of component parts in a passenger-train car shows that the structural shell accounts for approximately 30 per cent of the total weight, and the truck 32 per cent. The remaining 38 per cent consists of interior furnishings, seating, heating, lighting, air conditioning, batteries, body brake equipment and power supply. Experience in service and analysis of the structure's behavior in wrecks demonstrate that all possess a reasonable safety factor.

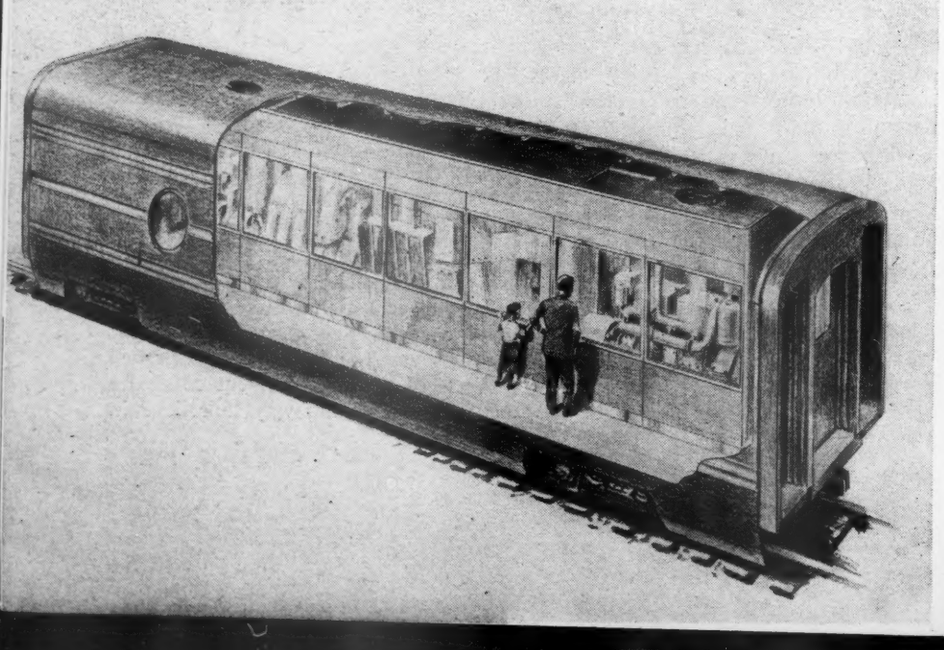
The history of railroad accidents, particularly of passenger trains, discloses that most of them are due not to defective equipment but to the personnel or human element. Some day, perhaps not too far distant, the operation of trains will be completely automatic. Controls will be governed by electronic equipment. The engineman at the throttle will not even start the train, much less stop it, and if anything goes wrong it will be stopped automatically, eliminating the human equation. A passenger-train accident will be a thing of the past.

In that age, passenger-train cars will be of a different design structurally. We will, perhaps, follow airplane construction—design based on lightweight materials, such as aluminum alloys, magnesium, plastics, etc. Looking ahead, we have designs of this nature using aluminum alloys. None has been

An abstract of a paper presented at the meeting of the Transportation Division, American Institute of Electrical Engineers, at New York, February 6.

Cut-away power car of a high-speed double-end Diesel electric train, showing glass partition and passageway

American Car & Foundry design



built as yet. The weight of this structure per passenger is roughly 25 per cent of the weight of the present conventional alloy-steel car construction.

Exteriors

Exterior appearance is largely a matter of personal taste. From this standpoint the new cars will be of three types: (1) shiny unpainted; (2) painted; (3) combination of shiny and painted.

Stainless steel in fluted sections is well adapted to the shiny unpainted exterior and may be applied either on framing of low-alloy, high-strength steel, stainless steel, or aluminum. The surface of stainless, however, is not well adapted to the application of paint coatings. A similar shiny unpainted fluted appearance will be accomplished on a number of the cars of aluminum construction by the use of extruded anodized aluminum moldings.

For painted exteriors, low-alloy, high-strength steel and aluminum construction are best adapted. With spot-welded attachment of side sheets the low-alloy, high-strength steel sides will be perfectly smooth without exposed rivet heads or other projections, which feature makes for easy cleaning and minimum accumulation of dirt.

Coaches

Of the cars on order, coaches considerably outnumber other types. These coaches will be equipped with conveniences to suit the most advanced standards of modern passenger travel. Comfortable reclining seats, deeply cushioned and upholstered in soft sponge-rubber, allow the passenger's body to stretch out in a relaxed position without annoying his neighbors either in front, in back or beside him. These chairs also may be revolved to face the broad double-glazed nonfogging windows for a clear unrestricted view of the countryside, or turned about to face neighboring passengers. The lounge compartments will be larger and will contain every modern toilet facility for the journey. Deep divans and roomy chairs, large mirrors, dressing tables—all are found in these lounges.

Fluorescent lighting will be used, placed directly over the center of each seat in the bag racks. The latest type of electric water coolers will be provided, also air conditioning throughout, and insulation against heat, cold and noise, shutting out virtually all operating noises.

These are some of the provisions which have been made in the design of these coaches to make the traveler's journey cheerful and comfortable.

In the luxury cars such as lounge, bar, tavern, observation, buffet cafe and dining cars, we will see striking examples of the ultimate in decorative features—soft pastel shades, varied in each car, colorful blending of drapes, chair fabrics, carpets and window curtains—and in new facilities such as private rooms, cocktail lounges, snack bars, lunch counters, motion pictures and even space for dancing and nursery playrooms.

Sleeping Cars

Approximately one-third of the cars now on order are sleeping cars. Of this portion, single-occupancy rooms or roomettes take preference over bedroom cars. We shall see considerable improvement in sleeping accommodations. Single-occupancy room cars of the prewar design have accommodations for 18 passengers. Present designs accommodate 21 passengers with no change in size of rooms. This has been accomplished by relocation of wardrobe, folding washbasin and shelf space. Appointments such as ash receivers, toilet paper holders, berth operating mechanism and other hardware in general have been refined. Double bedrooms have been designed with private enclosed toilet facilities. The upper berths in these bedrooms disappear into the ceiling, thus giving the room a more spacious appearance.

Improved heating and air-conditioning control will add to passenger comfort. Fluorescent lighting will also be featured in these room cars. Even the porter has been given consideration in that practically every sleeping car will have a folding berth for his use.

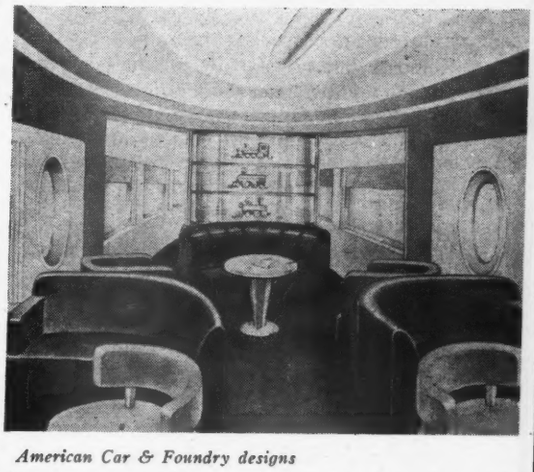
Radio Equipment

Several railroads have installed very-high-frequency radio equipment on their through freight trains for end-to-end radio communication between the engineman in the locomotive and the conductor in the caboose. Also low-frequency induction radio is being installed on the cabooses for direct communication with wayside stations. These two systems are entirely independent of each other. The primary reason for the installation of these radio communication facilities is to speed up the handling of freight traffic, help eliminate delays and at the same time provide an added factor of safety.

I mention this because we shall see this type of equipment installed in passenger cars. As a matter of fact, several railroads are specifying installations of radio speakers in each bedroom so that passengers may listen to radio programs at the flip of a switch, or special announcements can be made by the conductor on the train through these same

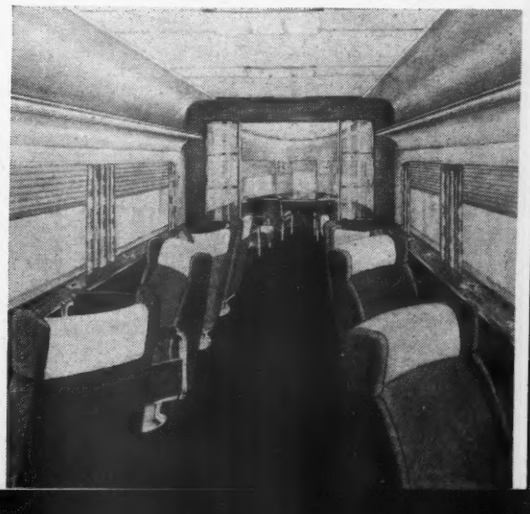
American Car & Foundry designs

Above—Coach interior with smoking lounge in the backgrond on the new L. & N. streamliners. Below—Passenger coach for suburban traffic



American Car & Foundry designs

Above—A suggestion for the interior of an observation car. Below—A suggestion for the interior of a combination chair and observation car



American Car & Foundry design

Interior of Slumberliner—Dayflector sash has louvres in its upper portion; the continuous fluorescent light has a new location, close to the reading plane. Solid baggage racks serve as a diffusing reflector for light, and have a slotted front for easy cleaning

speakers. In the not-too-distant future we may be able to pick up a phone in our private room on a train and speak to relatives or friends as we pass through or near the cities in which they reside.

Air Conditioning

Modern passenger cars are heated almost universally by finned-copper, floor-mounted steam-radiation systems supplied from the locomotive. Electric power required is furnished either by axle-driven or gas-engine-driven d.c. generators in conjunction with storage batteries of sufficient capacity to carry electrical loads for a reasonable time. Air conditioning is provided by d.c. electro-mechanical refrigerant compressors, by steam-jet systems, or by gas-engine-driven refrigerant compressors. Cooling capacity is usually 6 to 8 tons.

Cars equipped with either one of these systems utilize direct-current power supply of 32, 64, or 110 volts potential. A motor-alternator or other conversion unit is usually provided to furnish alternating current for serving fluorescent lighting, utility outlets and other devices.

A reduction in weight of approximately 2,500 lb. has been accomplished by operating car electrical equipment from a source of relatively high-voltage alternating current carried on the car. Such a car recently was placed in service in this country. Three-phase 220-volt, 60-cycle a.c. power is supplied by a Diesel-engine-driven 30-kva. generator mounted in the body. The engine-generator set is mounted on slide rails, and may be removed as a unit for servicing. Cooling capacity of 8 to 9 tons is furnished by an air-conditioning unit powered by hermetically-sealed a.c. refrigerant compressors. The entire cooling assembly may be removed from the car without breaking any refrigerant lines; thus it can be serviced during the winter months.

The car is heated normally by utilizing the heat lost to the Diesel-engine cooling system supplemented by electric strip heaters mounted near the car floor and in the fresh air-intake ductwork.

A centrifugal air cleaner removes much of the dirt present in the 800 cu. ft. of fresh air drawn into the car for ventilation. A Precipitron further cleans the air and removes tobacco smoke particles from recirculated car air. Generation of alternating current power on the car makes possible the use of commercially developed a.c. apparatus, including an a.c. motor cooler. The use of 220-volt a.c. current in power circuits effects a substantial reduction in the weight of wire, cable and conduit on the car.

Still further reduction in the weight of passenger-car electrical and heating equipment may be achieved when power is generated at the head end of the train. Such a system requires train-lining of power and control circuits of all cars in the train.

Lightweight Unit

The very lightweight air-conditioning unit is basically of aluminum construction and has a capacity of 10 tons of refrigeration. Two hermetically sealed, 2-stage, 5-hp., 3-phase, 208-volt, Freon compressors, equipped with oil coolers and necessary valves, are mounted on supports. Specially designed evaporative condenser refrigeration coils and electric air heating coils are all housed in a refrigeration compartment.

All parts are easily accessible for maintenance through hinged access doors. The equipment is electrically controlled, automatically, so that the inside dry- and wet-bulb temperatures are based on outside atmospheric conditions, summer and winter. Power is supplied from a head-end Diesel-electric unit. Exclusive of the power unit, the total weight is 2,200 lb.

Things to Come

Borrowing a phrase from Drew Pearson, I will now crawl out on a slender limb and offer "some predictions of things to come."

An innovation in lighting has been conceived in a coach which we have named the "Sunliner." The notable feature in this arrangement is the fact that the light has been brought closer to the reading level. By being installed along the sidewall of the car, the fixture carrying the fluorescent tubes is not only a fixture but a conduit box, eliminating all former conduits behind the side-wall finish and assuring low-cost maintenance. Another feature is that the underside of the baggage rack becomes a reflector, thereby contributing to even light distribution. Location of the light source so close to the eye-level might seem objectionable, but through a new system of combining louvers into a transparent plastic cover, this objection is eliminated.

Formerly, night lights in cars were installed in the light fixture. In this arrangement the night lights are installed at the window posts and have an independent d.c. conduit also installed in the fixture. This conduit is fed directly from the battery, assuring continuous operation. The night lights, therefore, can also be used for emergency lighting.

We have also visualized a high-speed shuttle train. This train will have characteristics of an electrified unit depending on outside current supply. However, in the proposed design power is supplied by a power car in the center of the train. Diesel-powered generators supply current to two axles in each car, assuring high acceleration and electric silent braking.

A notable feature of this train is that it will not have to be turned around. It can move equally well in both directions. Both ends of the train are arranged as observation lounges with the driver seated in a separate cab above.

(*Continued on page 562*)

Post-Mortem on Poorest Earning Year Since 1940

I. C. C. bureau's "Monthly Comment" reviews roads' financial situation; gives preliminary analysis of waybill data

FURTHER analysis by the Interstate Commerce Commission's Bureau of Transport Economics and Statistics of Class I railroad financial results for 1946 points up the fact that last year's net income of $288.5 million was the smallest since 1940, "despite the fact that carriers included in their 1946 accounts federal income tax credits amounting to $170.5 million or the equivalent of nearly 60 per cent of the reported net." The analysis is presented in the latest issue of the bureau's "Monthly Comment."

It sets out figures based on 1946 monthly returns which show that 35 roads reported net deficits aggregating $65.2 million for the year while 90 roads reported net incomes totaling $353.7 million. In 1940, when the composite net income was $185.1 million, 47 roads reported deficits and 80 reported net incomes. Since 1940 the number of roads reporting deficits has ranged from 1943's 12 to last year's 35, while the number reporting net incomes has ranged from last year's 90 to 1942's 115.

Fixed Charges Down

Other figures presented by the bureau compare selected income account items for 1946 and 1941, the latter being "substantially a pre-war year." There it is noted that although the 1946 net railway operating income of $620.2 million was $378 million or 37.9 per cent less than that of 1941, fixed charges had meanwhile decreased $120 million or 25.9 per cent. The ratio of income available for fixed charges to fixed charges was 1.69 in 1946 as against 1.83 in 1941. "However," the bureau added, "dividend appropriations of $234.6 million in 1946 were 26.2 per cent above the 1941 figure."

In its further discussion of the 1946 results, the "Comment" said it was "important to note" that comparisons with 1941 are "appreciably affected by changes in accounting rules, especially the change from the former voluntary to the present mandatory depreciation accounting for fiixed road property which became effective January 1, 1943." Also, a more recent accounting change, effective January 1, 1944," provided for charges to operating expenses covering retirement of certain road property."

The net working capital (current assets less current liabilities) of the Class I roads on December 31, 1946, is shown to have been $1,909.8 million as compared with $2,254.9 million one year earlier, a reduction of $345.1 million. Excluding materials and supplies the decrease was "slightly over $400 million." At the end of 1946 the ratio of current assets to current liabilities "was somewhat higher than at the end of 1945," the bureau reported, adding: "It should be noted that this slight improvement was attributable to the decline in liabilities rather than to increases in current assets, materials and supplies being the only one of these items to rise. The ratio of quick assets to current liabilities was 1.23 in 1946 as compared with 1.22 in 1945 but the total quick assets declined $581 million in 1946."

Operating Ratios

Operating ratios are shown for the years 1940-1946 and months of December, 1946, and January, 1947, for the five largest roads from the standpoint of mileage operated in each of the Eastern and Southern districts, and for the 10 largest roads in the Western district, five of the latter being classified as transcontinentals and the remaining five as "other western railways." The highest 1946 operating ratio of any of the 20 roads was 90.88 per cent for the Southern Pacific, which was classified among the transcontinentals; the lowest was 71.07 for the Chicago, Burlington & Quincy which was classified among the "other western railways."

The 1946 ratios of all five roads in the Eastern group were higher than those of 1945 while the Seaboard Air Line in the Southern group showed a decrease, as did four western roads—the Burlington, the Atchison, Topeka & Santa Fe, the Great Northern and Northern Pacific. In this connection the bureau noted that the comparison generally with 1945 would be more unfavorable to 1946 had not the 1945 accounts been "inflated by large charges to operating expenses on account of amortization of defense projects."

Seventeen of the 20 roads showed increases in their operating ratios in 1946 over 1940 ranging from 1.49 percentage points in the case of the Seaboard to 19.84 points for the Pennsylvania. The bureau included the comparison of the December, 1946, and January, 1947, ratios to indicate the result of the Ex Parte 162 freight rate increase, although it pointed out that the full effect of that adjustment was not reflected in the January accounts. All roads listed with the exception of the Illinois Central, Great Northern and Chicago & North Western showed improvement in their ratios in January over the previous month, the decreases being "in most cases substantial," as the bureau appraised them. The New York Central's ratio, for example, was down from 106.36 to 84.64; the S. P.'s from 104.35 to 77.7; and the Burlington's from 79.19 to 63.63.

January Revenue Indices

The January revenue figures show that the freight revenue for that month on a daily basis was 8.1 per cent above December and 21.5 per cent above January, 1946. Passenger revenues were down 11.1 per cent from the previous month and 40.1 per cent below January, 1946. The January freight revenue index (based on the 1935-1939 monthly average as 100) was 205.2 compared with December's 189.9 and January, 1946's 168.9. The passenger revenue index was 235.4 compared with December's 264.7 and January, 1946's 392.9.

The net railway operating income for the 12 months ended with January was put at $610,356,000 and the net income at $283,647,000. These compare, respectively, with $839,833,000 and $437,565,000 for the 12 months ended with January, 1946, and with $1,097,371,000 and $661,449,000 for the 12 months ended with January, 1945.

Another article in the "Comment" presented what the bureau called "certain preliminary and simple analyses based upon a small sample of audited carload waybills being systematically collected with some additional rate information from all Class I steam railways, beginning with November, 1946." The article includes four tables showing in turn for November, 1946, the territorial flow of carload traffic terminated; the relative importance of intraterritorial traffic; the relative importance of class rate traffic; and the territorial flow of box cars used for carload traffic. The data taken from the waybills were "expanded to express the total movement of the 2,909,470 cars" terminated in November, 1946, as reported in the commission's freight commodity statistics.

The traffic-flow data indicate that 1,430,900 carloads or slightly less than half of those terminated in November were originated in Official territory, the

Not on the Dole

American railroads are distinguishable from most other transportation systems in that they are almost wholly the creation of capital coming from private sources. Further and more significant, they are operated without government aids. Financially, they are on their own—not as wards of the Treasury—but as independent business enterprises. Whatever the balance sheet may show, no figures there represent a government dole.

—R. V. Fletcher, president of the Association of American Railroads, in the March Atlantic Monthly.

Western Trunk Line area ranking next with 484,000 carloads originated. Official territory originations accounted for something over half of the total carload tonnage but only 45 per cent of the total revenues, "not all of which accrued to roads in that territory." The data on the relative importance of intraterritorial traffic show that in each territory more than 70 per cent of the carloads and more than three-quarters of the tonnage terminated was intraterritorial.

As for the relative importance of class-rate traffic, the bureau estimated that for all territories the class-rate traffic in November amounted to 5.8 per cent of the carloads, 3.1 per cent of the carload tonnage and 7.7 per cent of the carload revenue. This compilation further showed that of Official intraterritorial traffic 7.3 per cent of the carloads, 3.5 per cent of the carload tonnage, and 9.9 per cent of the carload revenue were accounted for by movements on class rates. On the other hand, the bureau found that of the total carload traffic moving from Official to Western Trunk Line territory, 26.7 per cent of the carloads and 17.2 per cent of the carload tonnage moved on class rates, this class-rate traffic representing 31 per cent of the total carload revenue from that interterritorial movement.

The data on the territorial movement of box cars includes an estimate that box-car terminations in November aggregated 1,184,000 cars, of which 553,000 cars represented Official territory terminations.

Eighty and six-tenths per cent of the latter represented intraterritorial movements, while such movements accounted for 77 per cent of the November box-car terminations in Western Trunk Line territory.

The bureau's analysis of December 31, 1946, data on the condition of railway equipment noted that the number of unserviceable freight cars on line as of the close of last year was 70,098 as compared with 75,630 one year earlier, the per cent unserviceable to total freight cars on line having dropped from 3.9 to 3.6. The number of serviceable freight cars on line was up from 1,861,819 to 1,867,470.

Freight train performance statistics, as the bureau read them, showed that such averages as cars per train, net tons and gross tons per train, net ton-miles per car day, and load per car "were not quite as favorable in 1946 as in 1945, but they indicate a marked improvement over the performance in 1941." Meanwhile, "some improvement" was recorded in 1946 over 1945 in the average speed of freight trains (16 as compared with 15.7 miles per train-hour); and in gross ton-miles per train-hour (37,071 as compared with 36,954). Per cent loaded (67) of total freight car-miles was the same in 1946 as in 1945, but the bureau pointed out that it was 3.1 percentage points above the 1941 figure.

The passenger averages show that the car-miles per train-mile of locomotive-propelled trains dropped from 10.4 in 1945 to 10.1 in 1946, while the average speed of such trains rose from 35.7 to 36.7 miles per train-hour. Passenger train-miles per mile of road per day were 7.6 in 1946 as compared with 8.2 in the previous year.

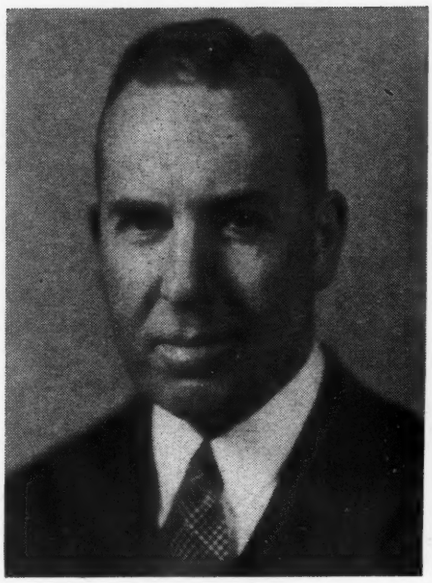
Comparative figures on railway purchases of fuel in 1946 and 1941 show that the tonnage of coal purchased f. o. b. mines increased only 2.8 per cent during that period, while the Diesel fuel purchased was up 361.7 per cent. The Class I roads purchased 106,022,000 tons of coal f. o. b. mines in 1946 as compared with 103,157,000 in 1941; their respective purchases of Diesel fuel were 559,188,000 gal. and 121,114,000 gal. The average cost of coal to the railroads rose 54 per cent between 1941 and 1946 while the average cost of Diesel fuel went up 22.2 per cent.

* * *

A Burlington Vista Dome car nears La Crosse, Wis.

G. P. McNear, T.P.&W. Head, Dies from Gun-Shot Wounds

GEORGE P. McNEAR, JR., president of the strike-troubled Toledo, Peoria & Western, whose fight against "featherbed" rules and working conditions had incited continuous labor difficulties on the 239-mi. road since 1941, was shot to death near his home at Peoria, Ill., on the night of March 10. As this issue of *Railway Age* went to press, Mr. McNear's assailant had not been identified, nor had any evidence been disclosed as to the motive behind the attack.



Harris & Ewing

George P. McNear, Jr.

19 Years as President

The 55-year-old railroad executive's death ended a 19-year career as T. P. & W. president and controlling stockholder, whose energy and business acumen lifted the line from chronic bankruptcy before 1926 to an enviable earning position. In 1941, for example, the road enjoyed a net railway operating income of $457,605. A short time after purchasing the road at a public auction on June 11, 1926, for $1,300,000, the new owner had the line operating on a profitable basis, according to its published reports.

As outstanding as Mr. McNear's financial success with the road was his persistent refusal to "give in" to union demands for instituting "standard" working rules and rates of pay on his railroad. A strike on the road of seven months' duration in 1929 foreshadowed greater future strife, which began in December, 1941, and extended to date, with the exception of a period of operation by a government manager from March 22, 1942, to October 1, 1945.

The T. P. & W. is presently operating under an order issued by the federal district court at Peoria, which on December 5, 1946, directed that service be restored, and enjoined strikers from interfering with the line's operation. As far as is publicly known, no new negotiations are in progress between the road and the striking brotherhoods.

The slain president's death came at a time when violence had subsided somewhat on the road, although no agreements had been reached between it and the unions, whose members promptly walked out upon the road's return to private operation. The dispute had previously resulted in the death of two pickets shot by railroad guards at Gridley, Ill., on February 6, 1946.

Mr. McNear, a robust six-footer, whose devotion to his ideas was termed "perseverance" by some and "stubbornness" by others, never wavered in his stand against featherbedding rules and practices. He asserted that 50 men working by his rules could do work that required 83 men under rules demanded by the brotherhoods. Testifying before the House of Representatives' military affairs committee in 1943, he declared that "featherbed rules in time of war are treason."

The T. P. & W. president held that, without featherbed rules, a smaller number of better-paid employees could operate his road more "successfully," provide better service and use less equipment and materials.

Mr. McNear once declared that the railroads don't need greater revenues, but "need to decrease expenses." Some analysts of the railroad business assert that it was largely through this policy, coupled with alert traffic solicitation, that he was able to place the T. P. & W. "in the black," despite the fact that he had little railroad operating experience at the time of his purchase thereof.

George Plummer McNear, Jr., was born on June 15, 1891, at Petaluma, Cal., and attended Hitchcock Military Academy at San Rafael, Cal. He attended the University of California in 1908 and 1909, and received a degree in mechanical engineering from Cornell University in 1913. For a time he was engaged in engineering and construction work with the New York Central, later becoming associated successively with the E. I. duPont de Nemours & Co.; Westinghouse, Church, Kerr & Co.; and the Guaranty Trust Company of New York.

It was while engaged in the study of investment securities that he sensed the financial possibilities in the T. P. & W. At that time he was a minority bondholder in the road, which had been in hands of receivers since 1917. Mr. McNear's striking transformation of the road's earning power is reflected in selected financial statements. In 1925, the T. P. & W. showed a deficit of $415,652. The following year the deficit was decreased to $310,782, and in 1927 the road had a net income of $32,498. Profits steadily increased thereafter and, in 1941, the last strike-free year under which the line was operated by Mr. McNear, it enjoyed a net income of $404,594.

Little change occurred in the amount of equipment owned by the road under Mr. McNear's administration, nor was its line extended or shortened to any degree. Fixed charges were earned in full in each of the depression years—in 1933, 1934 and 1935, well over two times and, in 1936 and 1937, almost four times.

Inception of Difficulties

Labor difficulties on the T. P. & W. became acute on December 28, 1941, when enginemen and trainmen walked out, following the company's announcement that it would put new rates of pay, rules and working conditions into effect. Mr. McNear determined that his employees would "deliver eight hours' actual work for eight hours' pay" and was cold toward numerous telegrams from government officials, including the late President Roosevelt, requesting settlement of the dispute by an arbitration board. The T. P. & W. chief insisted, instead, on placing the differences before a presidential emergency board.

The strike continued, with allegedly attempted murder, arson and other violence as its concomitants, until March 21, 1942, when President Roosevelt ordered the Office of Defense Transportation to take over the road. John W. Barriger, associate director of O. D. T., and now president of the Chicago, Indianapolis & Louisville, was appointed federal manager, to be succeeded later by Holly Stover, now president of the Chicago & Eastern Illinois. On October 1, 1945, when the road was returned to Mr. McNear's administration, the strike was resumed. Since that date several attempts by shippers to have the road operated by a

(*Continued on page 562*)

Big Events Planned at C
by A. R. E. And

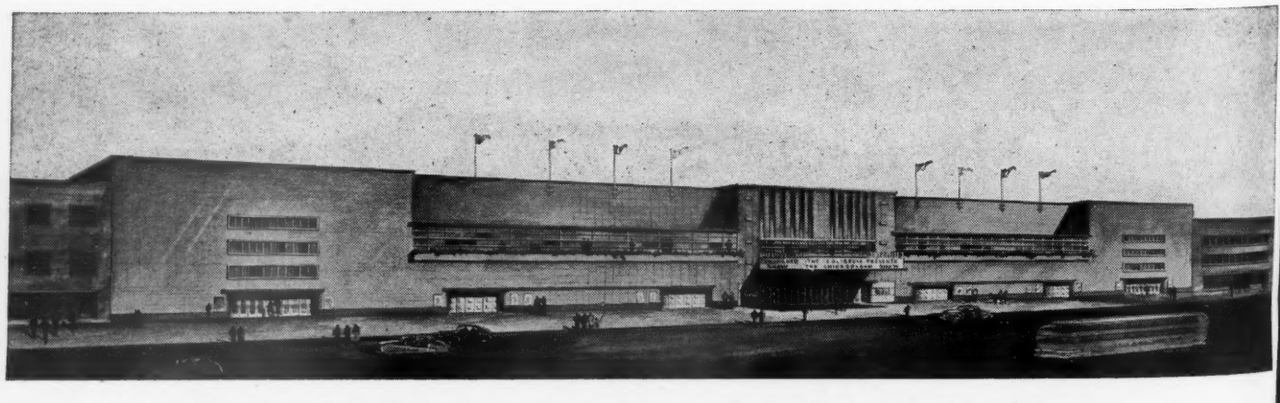
Three-day meeting to be held at Palmer House, March 18-20, by American Railway Engineering Association—Exhibition of National Railway Appliances Association at the Coliseum will be the largest to be held by this group for twenty years

The Palmer House, Chicago, headquarters of the A.R.E.A. meeting

In the next, or March 22, issue of the *Railway Age*, which will be designated the A.R.E.A. Convention Number, will be presented a complete report of the annual meeting, including abstracts of all the committee reports and addresses to be presented at the various sessions, with reference to pertinent comments made from the floor. This same issue will also contain a complete list of the companies participating in the exhibit of the N.R.A.A. including the names of the representatives in attendance at each exhibit and an account of the products displayed.

WHAT might be termed "annual engineering week" will begin at Chicago on Monday, March 17, when the National Railway Appliances Association will open its thirty-eighth annual exhibit at the Coliseum, to be followed on Tuesday by the convening of the forty-sixth annual meeting of the American Railway Engineering Association at the Palmer House. While the A. R. E. A. meeting will be the second three-day convention to be held by this group since the end of World War II, following the cancellation of several annual meetings during the war years, the N. R. A. A. exhibit will be the first full-scale affair to be held by this organization since 1941.

In line with customary practice the meeting of the A. R. E. A. will be held in the Grand Ballroom of the Palmer House. The program will consist for the most part of the presentation of reports by 22 committees of the association on a total of 95 subjects dealing with a host of problems confronting railway engineering and maintenance officers. Supplementing these reports will be a number of addresses dealing with a variety of subjects of special interest at this time. Aside from the address of the president and the reports of the secretary and the treasurer, the opening session on Tuesday morning will be featured by an address by Col. R. S. Henry, assistant to the president of the Association of American Railroads. Another special event that will take place during this session will be the presentation of an honorary membership in the association to D. J. Brumley, a past-president of the A. R. E. A., and retired chief engineer, Chicago Terminal improvements, of the Illinois Central.



This view of the Coliseum, where the N.R.A.A. exhibit will be held, shows the structure as it will appear when a modernization program now under way has been completed

...neat Chicago ...C. And N.R.A.A.

As in past years the Tuesday afternoon session will be shortened somewhat, adjourning at 4:30 p. m. to permit those in attendance to view the N. R. A. A. exhibit. During the morning session on Wednesday a special feature, which will be presented following the report of the Committee on Roadway and Ballast, will be an address on Soil Mechanics as Applied to Railroad Roadbeds by Prof. Ralph B. Peck, University of Illinois. Immediately afterward, the annual luncheon will be held, at which the principal speaker will be C. McD. Davis, president of the Atlantic Coast Line.

In addition to a number of committee reports, the afternoon session on Wednesday will be featured by two addresses, both of which will follow presentation of the report of the Committee on Rail. One of the addresses will be delivered by Prof. R. E. Cramer, University of Illinois, and will deal with the rail failure investigation now being made at that university. The second, to be presented by G. K. Manning, Battelle Memorial Institute, will discuss the results of an investigation of shelly spots in rails that is now being made under the auspices of the institute.

An unusual aspect of the session on Thursday morning will be the installation of the new officers about midway of the program, with several committee reports to be presented afterwards. Heretofore the practice has been to install the new officers after the last committee report had been presented.

The regular sessions of the meeting will be presided over by J. B. Akers, president of the association and chief engineer of the Southern, assisted by Vice-President Armstrong Chinn, president of the Terminal Railroad Association of St. Louis. A complete program of the meeting appears at the right.

With more than 100 companies participating, the N. R. A. A. exhibit of equipment, materials and devices used in the construction and maintenance of railway tracks, bridges, buildings and water service facilities will be the largest to be held by this association for 20 years. The exhibit will open, as already stated, on Monday, March 17, and will extend through Thursday, March 20. On each of these days the exhibit will be open from 9 a. m. to 6:30 p. m., except that on Thursday it will close at 3 p. m. Being located in the Coliseum, the exhibit will be only a few minutes' ride from the Palmer House by street cars, which may be boarded practically at the door of the hotel. The exhibit is being directed by W. J. Hanna (Republic Steel Corporation), as president of the N. R. A. A., and C. H. White (Industrial Brownhoist Corporation), as secretary.

PROGRAM

46th Annual Meeting
Palmer House, Chicago

Tuesday, March 18

Morning Session—9:45 a.m.

Address of J. B. Akers, president
Reports of the Secretary and the Treasurer
Address by R. S. Henry, assistant to president, A.A.R.
Address by L. B. Porter, chairman, Signal Section, A.A.R.
Address by K. H. Gordon, chairman, Electrical Section, A.A.R.
Presentation of Honorary Membership to D. J. Brumley

Reports of Committees on
Economics of Railway Location and Operation
Highways

Afternoon Session—2 p.m.

Reports of Committees on
Cooperative Relations with Universities
Yards and Terminals
Waterways and Harbors
Water Service and Sanitation

Adjournment at 4:30 p.m. to visit National Railway Appliances Association Exhibit at the Coliseum

Wednesday, March 19

Morning Session—9 a.m.

Reports of Committees on
Maintenance of Way Work Equipment
Economics of Railway Labor
Ties
Wood Preservation
Roadway and Ballast

Address by Prof. R. B. Peck, University of Illinois, on Soil Mechanics as Applied to Railroad Roadbeds

Association Luncheon, 12 o'clock
Grand Ballroom, Palmer House

Address by C. McD. Davis, president, Atlantic Coast Line

Afternoon Session—2:30 p.m.

Reports of Committees on
Buildings
Track
Rail

Address by Prof. R. E. Cramer on the Rail Failure Investigation at University of Illinois

Address by G. K. Manning on the Shelly Rail Study at Battelle Memorial Institute

Thursday, March 20

Morning Session—9 a.m.

Reports of Committees on
Uniform General Contract Forms
Records and Accounts
Waterproofing
Impact and Bridge Stresses

Installation of Officers

Reports of Committees on
Masonry
Iron and Steel Structures
Clearances
Wood Bridges and Trestles

Adjournment

Maintenance and Construction Forces Plan Large Budgets for 1947

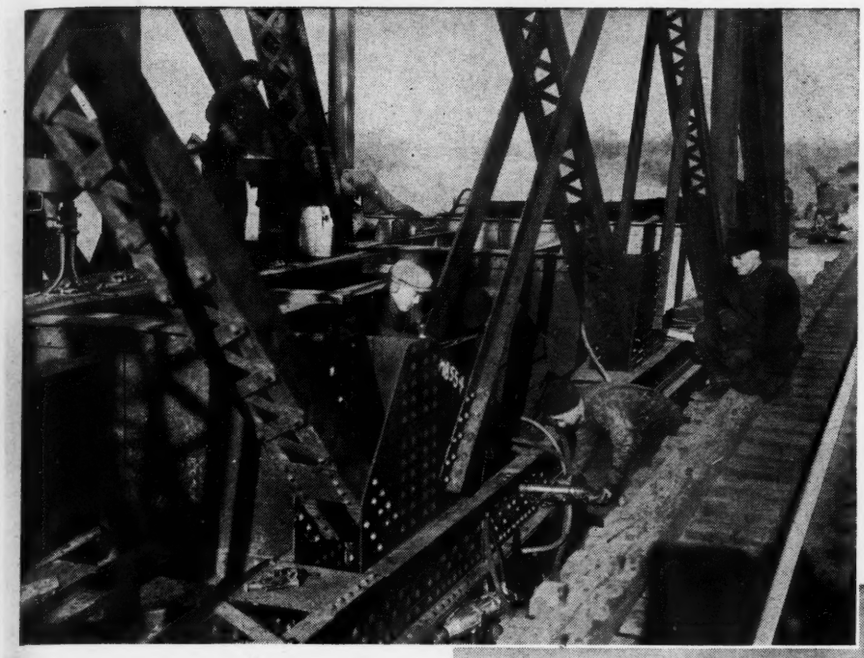
Uncertain business conditions, high prices and shortages of materials tend to hold down work in sight, but expenses will rise—Results may prove more favorable than outlook

The railways of the United States and Canada plan construction programs in 1947 totaling $346,000,000, which may be affected to a large extent by their ability to secure needed materials. This is $46,000,000 more than was planned at this time last year. For maintenance of way, the budgets total $1,287,000,000, or slightly more than those in 1946. Roads also plan to spend about $15,000,000 for more than 9,000 units of work equipment with which to carry out their programs.

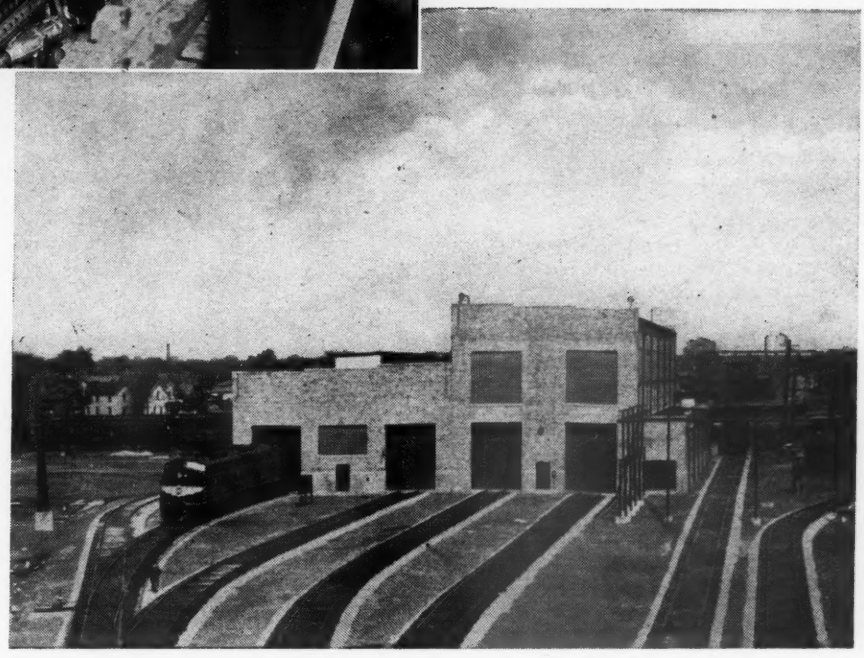
LEAVING a troublesome year behind, railway engineering and maintenance officers look ahead to an uncertain but better 1947. While they recognize that an enormous amount of work and huge expenditures will be necessary to supply and maintain facilities that will permit railroad service adequate for high-level peace-time production, they expect to be able to undertake a large part of this work through improved credit and through increasing freight traffic on which the recently granted rate increase is applicable. Some of them also anticipate relief through higher passenger fares.

In their enthusiasm to attack this necessary work, however, they are deterred to some extent by some uncertain aspects of business, along with the high costs of labor and materials that prevail, as well as the threat of still higher costs and shortages of many materials. These conditions have presented a dampening influence as the railroads have prepared their work budgets for 1947, but if they crystallize into anything resembling a clear and reassuring picture in the near future, the amount of work that will be undertaken this year may well exceed that in any year since the late Twenties.

That this prospect is no mirage is indicated by information obtained by *Railway Age* from the engineering



Above — A record amount of bridge improvement and maintenance work may be carried out during the year if the necessary materials can be obtained



Facing page—Grading equipment in operation on one of the many large line-change projects now under way

Right—Continuance of the trend toward Dieselization is requiring the construction of many new shops and servicing facilities designed to meet the special requirements of such power

officers of a selected group of typical roads in the United States and Canada concerning their plans for the current year with respect to both maintenance and construction. The chief engineers or engineers maintenance of way of 31 roads, representing 45 per cent of all the operated mileage of the two countries, reported on their 1947 work budgets. Details as to their proposed expenditure were given by 28 roads. Five of these gave information on maintenance, but were unable to advise as to their improvements. One road reported, "the present unsatisfactory situation does not provide a basis for comprehensive planning of improvements," while another said, "conditions are such that no forecast can be made at this time." The remainder of those which did not give details reported that they were planning improvements, but were unable, as yet, to advise the amount of probable capital expenditures.

An analysis of the information supplied by these various officers indicates clearly that they do not all agree on the picture of the year ahead. Eight cast aside uncertainties and reported budgets above those of last year. Of these, one reported an increase in the program of his road of more than 12 per cent, while another expects his road to spend in excess of $3 million more than the previous year. Of the remainder who reported on their budgets, seven said the work to be undertaken would be about the same as in 1946; while all the rest reported plans to spend less. However, many of this latter group indicated that if the industrial and economic picture clears, their expenditures would be substantially increased.

Regardless of the variance among these reports, when they are considered as a whole they indicate that all the railroads of the United States and Canada will spend approximately $346,000,000 for improvements to their fixed properties during 1947. This is a larger amount than has been set aside for this kind of work since 1942, when they planned to spend $400,000,000. As stated previously, if general industrial and economic conditions improve during the year, and especially in the remaining months of the first half, the amount that is finally spent this year for additions and betterments may even exceed the 1942 figure. In work actually accomplished, however, because of the higher unit costs pertaining today, it is estimated that the 1947 volume will be considerably below that of 1942.

The general pattern of improvements in prospect on the railways reflects not only the previous volume of work in certain classes but also changing needs and the probable material supply. During the war years, extensive improvements were made to yard facilities in the form of more and longer tracks, usually to expedite the classification of cars and to reduce terminal delays. That this class of work has practically reached the saturation point for the moment is indicated by the fact that only nine roads reported any yard improvement work planned for this year, and the majority of the jobs planned are relatively small, only one being above $500,000.

On the other hand, bridge work, according to estimates, may amount to $70 million during the year. This is

largely because, while yards were being enlarged and tracks extended to hold the longer trains that the heavy locomotives of recent years have been hauling, war requirements for steel precluded the strengthening or renewal of many of the bridges, which the use of these same locomotives necessitated. With the removal of war-time restrictions and controls, orders were placed for the material required to make many of these bridge improvements, but whether steel will be available to meet the needs of all the work planned is questionable, and will be the controlling factor in the total amount of work of this character to be completed in 1947.

Dieselization Trend

The trend toward Dieselization is gathering momentum, with more roads initiating purchases of such power and some roads even embarking on plans for complete Dieselization. The extension of this trend calls for the construction of many new facilities and for the alteration of many engine terminals, shops and water supply facilities. In large part due to this trend, 19 roads reported they would make improvements to their engine-handling facilities in 1947, at a total expenditure of over $5 million. This is more than half the roads that reported, and indicates a total expenditure of more than $20 million for such work during the year.

Revisions of grade and of alinement are returning to a place of prominence among the improvement projects planned by many railways, after an almost complete lapse during the war years. Although a few roads completed several projects of this character during the war in order to handle their traffic more efficiently, most of them necessarily deferred such work. Now, with the post-war competition for business growing, many roads are turning more and more to revised grades and curve reduction to permit the operation of their streamlined equipment at higher average speeds and consequent lower elapsed time in transit.

However, it is the operating economies possible in such revisions that are as much responsible for the large amount of this work in prospect as any other consideration.

One of the largest of such projects scheduled for 1947 involves an expenditure of over $12 million to build more than 5 miles of new line, including several bridges and a new double-track tunnel 6,900 ft. long. This improvement is designed "to reduce heavy grades and sharp curves and to increase operating efficiency, improve safety, and enable the railroad to handle considerably more traffic." One-third of all the roads reporting on their budgets included revisions of grade and alinement, but few gave estimates of the amount of money they expected to spend.

Signal Work Expanding

Coincident with grade reductions and improvements in alinement to permit the maintenance of higher average train speeds, exemplified by the many streamliners in service and in prospect, larger programs of signal work are being planned in 1947. Seventeen roads said they intended to "continue" their extensive signal installations during the year. Most of this work is divided between the respacing of existing signals to give adequate braking distances, centralized traffic control installations with their incidental extensions of sidings, and new installations of automatic block signal systems. A number of roads report plans to remote-control various interlocking plants and to install inductive or space radio apparatus for two-way telephone conversation between trains and wayside stations, as

Crosstie renewals will occupy a prominent place in the railroads' maintenance program for 1947

Grade-crossing elimination work, after being severely curtailed in recent years, promises to regain a place of prominence in the construction picture

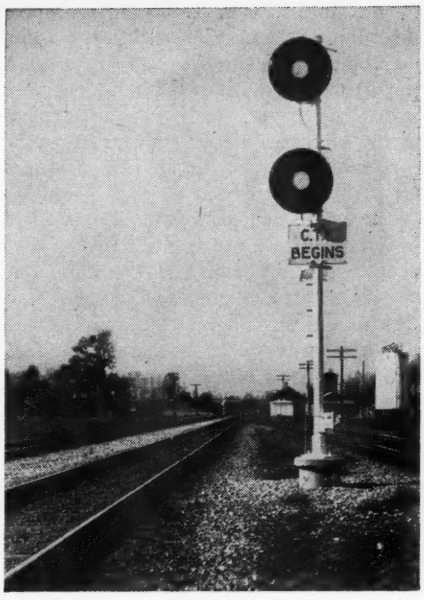
well as in yards. In all, it is expected that the signal and communication departments will spend close to $40 million for improvements in 1947.

The elimination or protection of grade crossings is another class of improvement work that has been severely curtailed during recent years because of material shortages, but one which again promises to become one of the larger construction items in the country. Current railway improvement budgets do not show adequately the expenditures to be involved in the grade separation and protection projects to be undertaken during the year, but that they will be substantial may be gained from the fact that there are federal appropriations available to the states for grade crossing elimination and protection work approximating $50 million a year for the three-year period that began with July, 1945, plus a backlog of unobligated funds of approximately $50 million which can be used for this work before the middle of 1948. That at least a large part of this money will be spent for the purpose intended is seen in the fact that 20 roads reported 71 grade separation projects to be started this year, while 23 roads said that they planned to install additional protection at 449 crossings—most such installations to be of the short-arm, automatic-gate type. Several other roads reported they expected to participate in such improvements, but that as yet they had not been asked to do so by the several states through which they operate.

In addition to the classes of work reported in detail, the budgets include many other projects of various types and sizes, such as new car-icing facilities, car shops, office buildings, cut-widening and drainage jobs, and a variety of miscellaneous work.

Maintenance Budgets High

Contrary to the downward trend of maintenance activity last year due to strikes, low net earnings resulting from the delay in receiving a freight rate increase, material shortages and other causes, maintenance programs in 1947 should be up considerably under the more favorable corresponding influences that are likely to prevail. In fact, on the basis of the information furnished by 29 roads that assisted in this study, the budgets for the year call for an expenditure of approximately $1,287,000,000 for the maintenance of the fixed properties of the railroads in the United States and Canada. This is $7 million more than was scheduled in the budgets at this time last year, and combined with the $346,000,000 that will be spent for improvements, brings the total for construction and maintenance to $1,633,000,000 for the year.



Larger programs of signal work have been incorporated in the improvement budgets for 1947

Fourteen roads reported that they expected to have a larger maintenance budget this year than last. Of these the smallest increase was 2 per cent and the largest 30 per cent. Eleven roads indicated they expected to spend about the same amount as last year, while four roads said their tentative budgets were smaller than last year—one as much as 27 per cent less.

The unprecedented traffic of war years, coming as it did so close on the heels of a depression during which maintenance money was scarce, has left many railroads with a greater need for new rail than for any other item of maintenance. While the allotments during the war for replacements were high in comparison with the years immediately previous, they were far below the amount of rail laid annually during the latter half of the Twenties and did not come close to meeting requirements. With the close of the war, plans were made to lay more than 2,400,000 net tons of rail in 1946—a large amount—but admittedly insufficient to bring the average rail condition to a point where annual renewals could be said to be normal. However, industrial strife and other conditions prevented the mills from furnishing even that amount, so that at the beginning of 1947 the need was still greater.

All the roads that gave any specific information as to their maintenance budgets indicated that they intended to lay new rail this year. This information indicates a program slightly in excess of 2,000,000 net tons for all the roads. While this is smaller by 400,000 tons than the amount budgeted last year, it is quite a bit larger than the amount actually laid in 1946. Several of the roads indicated that their rail programs would be still larger than now contemplated if they thought they could get the rail. One thing seems certain, and that is that, with many roads being assured by the mills of not more than 75 per cent of their original requests for rail, the rail laying programs in 1947 will not be as large as they would be otherwise.

Programs for the application of ballast and the surfacing of track in 1947 are commensurate with the amount of rail to be laid. Fourteen roads reported programs larger than last year, one of which is double the corresponding 1946 expenditure. Nine reported that their programs would be about the same, while six said their ballast work would be less.

A further indication of the volume of such work in prospect is given by the provision in the current budgets for the purchase of 595 tie tamping outfits, ranging from 4 to 12 tools, of both the pneumatic and electric types, and for 734 unit tampers. In addition, 248 other units, including cribbing machines, power jacks, power ballasters, etc., are included in the budgets for the year. This total of 1,577 units designed for use in surfacing track is much larger than the number programmed for purchase last year.

More Ties Will Be Used

Incident to the surfacing and ballasting of track, the railways intend to install close to 50,000,000 crossties during 1947. Each of nine roads reported insertions to exceed 1,000,000 ties. Forty per cent of the roads reporting indicated they would put in more ties this year than last, the increase on one road being 67 per cent, on another 60 per cent, and on a third 33 per cent. Twenty-five per cent of the roads reported their installations would be about the same as last year, and while the remainder indicated that allotments would be lower, the decrease averaged only about four per cent.

As the result of conditions in the tie industry during the war, there might have been serious doubt until recently as to whether the supply would be adequate to permit the renewal of 50,000,000 ties in 1947. However, as indicated in the January 4 issue of *Railway Age,* rising crosstie inventories have been one of the most heartening factors in the railway supply field. Even considering the disturbing shortage of creosote oil, inventories at the end of 1946 were more than five times the monthly production.

Labor shortages and the unavailability of materials in recent years have seriously hampered bridge and building men

in adequately maintaining their structures. For the most part during this period, safety dictated that what material and labor were available be used for bridges. Building maintenance and renovation have been further retarded seriously by Civilian Production Administration regulations, and in view of the uncertainty as to when these restrictions will be further modified or removed, plus the serious shortage of building materials that has prevailed, only a few railroads have made extensive plans for building modernization or maintenance. However, with production catching up with demands, indicating that the bottleneck in building materials is being broken, it is more than likely that much larger programs of railway building maintenance and modernization will be carried out in 1947 than was contemplated early in the year.

Bridge Painting Expected

Only four roads reported that their expenditures for building work in 1947 would exceed those in 1946. Four other roads said they would spend about the same amounts, while still another group of four roads indicated that building maintenance would be "normal." One road reported a smaller budget for this year than last, and most of the rest were noncommittal, mentioning the uncertain material supply as the major factor that deterred them from making any definite plans. A few gave the amounts of money that were being allotted to both bridge and building work, but did not indicate how such figures compare with previous years.

Bridge work, both improvement and maintenance, will continue to be large, as has been previously explained. Most of the information furnished grouped the amount of money to be spent on maintenance and improvements, so that the estimated figure of $70 million given previously covers both. A large part of the increase in maintenance expenditures for bridges will be for painting, an item that has been neglected largely because of a lack of paint. It has been estimated that there is need for an expenditure of more than $18 million for painting alone to give adequate protection to the bridges and buildings of all the railroads of the country. The budgets reported on in this survey show that such need is being met by active planning for large painting programs, held down only by the supply of paint and enough skilled painters to complete such programs.

The group of roads questioned as to their plans for 1947 were asked to advise what part of their improvement programs was made necessary by the obsolescence and inadequacy of their existing facilities. Many thought it was impossible to answer this question with any degree of accuracy. Others gave percentages which varied from none to 50.

One said, "Large percentage made necessary because of obsolescence and inadequacy. It is our policy to streamline the fixed plant to reduce maintenance and other costs, and to permit more efficient operation." Another said, "At least 50 per cent of our improvement program is made necessary by increased demands on our track and bridge structures." Still another road replied, "A considerable part of our program is necessary because of obsolescence and the inadequacy of existing facilities. Our station buildings to be modernized are still usable, but are considered inadequate and obsolete, and do not provide the convenience and comfort required for efficient operation."

These roads were also asked an allied question as to how much of their maintenance programs was made necessary by the unusual wear and tear of traffic during recent years, but not overcome currently. Samples of their replies best indicate the varied situation existing in this regard. One "fortunate" road said, "Our program in 1946 permitted recovery to some extent of the ground lost in handling the extremely heavy traffic of recent years." Another replied, "Still behind on current maintenance as a result of recent years of heavy traffic, inefficiency of labor and inadequate materials. Improvements in train service and increased speeds demand better track maintenance, which can be obtained only by well-trained labor, modern tools and the use of first-class materials." A third road reported, "Maintenance program not affected by wear and tear of traffic and train service." A fourth indicated that, "Maintenance program is normal. Heavy traffic of recent years or expected improvements in train service has not affected it." A fifth said, "Maintenance program, except for rail, is about normal. Large rail program due to failure to receive delivery, especially last year."

* * *

Photo courtesy of R. H. Kindig

The Chicago & North Western-Union Pacific-Southern Pacific "City of San Francisco" leaving Cheyenne, Wyoming

Equipment Purchases High

To accomplish the work needed with the expenditure of only $1,287,000,000, the railways of the country plan to purchase approximately 9,000 units of work equipment at an estimated cost of $15,000,000. This number may be increased to 9,900 units before the end of the year. While this latter figure is approximately the same as the total number of units of work equipment purchased last year, in many categories the number of units scheduled for purchase exceeds the number purchased in 1946. This, in itself, is a good omen, pointing toward record purchases once general business conditions, labor relations and material supply problems become sufficiently stabilized that railway officers can look ahead with confidence to undertaking the large amount of constructive work planned. When that time comes, as surely it will, it is assured that work equipment purchases will soar, urged on by a fact which all maintenance officers have learned—and of which many other railway officers are becoming aware—that in the face of high labor and material costs, it is only through the extensive and intensive use of work equipment that the normal maintenance ratio will suffice to permit the high quality and large quantity of work necessary to keep the railways abreast of competitive forms of transportation.

NEW AND IMPROVED PRODUCTS
of the manufacturers

Presented in these pages are descriptions of a large number of materials, machines and devices applicable to the wide range of work carried out by the engineering and maintenance forces

1. *Fairmont Motor Cars*

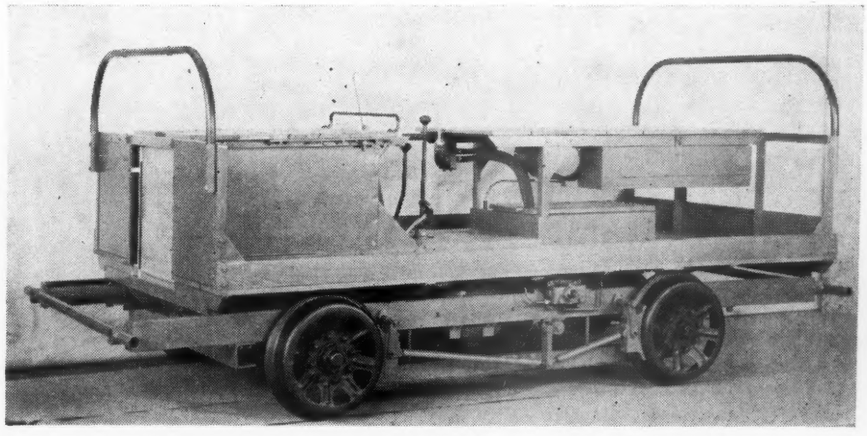
Fairmont Railway Motors, Inc., Fairmont, Minn., has announced the development of three new track motor cars—a heavy-duty gang car, a standard section car, and a light section car. These new cars are said to incorporate all of the latest developments in motor-car design, resulting in improved performance, simplified maintenance and minimum weight.

The new gang car, known as the A7 Series A, is equipped with a four-cylinder engine, capable of developing 40 hp. at usable track speed (32 m. p. h.). It is driven through a dry-disk clutch and a four-speed transmission. An enclosed directional gear in the driving axle permits the use of the four speeds in either direction. The frame is of bolted steel construction with front and rear extension-lift handles. To simplify setting off and turning the car, it is equipped with a built-in hydraulic lift and turntable, operated by a hand pump on the frame. Although it weighs 2,450 lb., a lift of only 580 lb. at the rear is said to be required when turning the car manually.

A 12-man seating capacity is said to make this unit well suited for use as a hump car. When it is equipped with hinged side steps, the total number of passengers may be increased to 22. Other features of this car include four-wheel vacuum-operated brakes, a 62-in. wheel base, electric starting, and a load capacity of 3,500 lb.

The new standard section car, designated as the S2 Series H, is a belt-driven unit powered by a 13-hp. engine. The frame is of bolted steel construction with aluminum alloy panels enclosing the engine and drive mechanisms. Wheel guards, step plates and tool trays are of steel plate fabricated in a safety-tread design.

The car is mounted on 16-in. demountable wheels with tapered roller bearings in box-type casings provided on each



The Fairmont A7 Series A heavy-duty gang car will seat 12 men

TIME-SAVER CARD for your convenience in obtaining, without obligation, more information on any one or more of the new equipment items featured on this and following pages.

3/15/47

RAILWAY AGE, New York 7, N. Y.

Circled below are items on which I request more information

☐ CATALOG ☐ SALES OFFICE ☐ PRICE INFORMATION

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	

NAME .....

TITLE OR POSITION .....

COMPANY .....

CO. ADDRESS .....

CITY ..... ZONE.. STATE.....

FIRST CLASS
PERMIT No. 153
(Sec. 510 P. L. & R.)
New York, N. Y.

BUSINESS REPLY CARD
No postage necessary if mailed in the United States

2c POSTAGE WILL BE PAID BY

RAILWAY AGE

30 Church Street

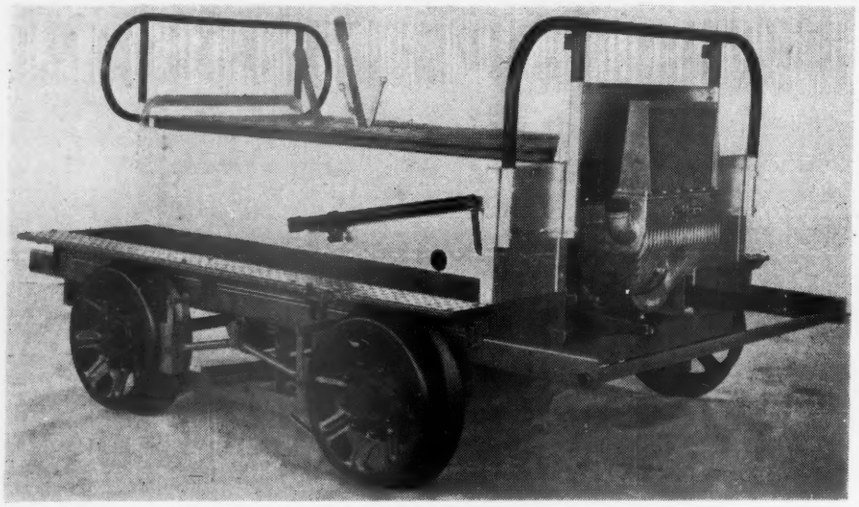
Readers' Service Dept.

New York 7, N. Y.

axle. The brakes are lever-controlled and are self-centered with renewable liners. Hickory extension-lift levers, with position stops, are provided at both the front and the rear of the car.

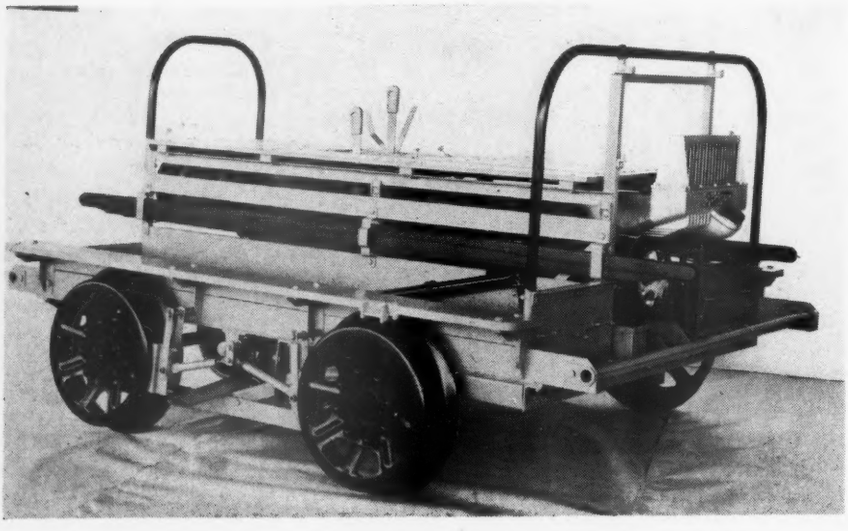
The new Fairmont light section car is also belt driven and is powered by a single-cylinder, two-cycle, reversible engine rated at 5 to 8 hp. Known as the M14 Series H, it weighs 810 lb. and seats six men. A rear lift of 112 lb., with the lifting handles extended, facilitates its use by as few as two men. The top seat is hinged at the rear so that it can be raised to give full access to the engine and drive, thereby facilitating inspection, cleaning and adjustments.

The engine cylinder head is of aluminum alloy and the engine incorporates a timing device, known as the Fairmont weather-sealed timer, which is said to provide positive ignition at all speeds in any weather. A battery ignition system, utilizing four dry cells, is used on this unit.



An aluminum-alloy panel encloses the engine and drive mechanisms of the standard section car, S2 Series H

M14 Series H light section car



2. *Timber Grip*

The Oliver Iron & Steel Corp., Pittsburgh, Pa., has developed the Oliver Timber Grip, a device for preventing ties from splitting, for holding closed any timber already split and for use in laminated timber construction.

The grip consists of two interlocking steel members which are introduced from opposite sides of the timber into a prebored hole. The members are each serrated or toothed at one end. When the toothed ends meet at the center of the timber, the application of hammer blows or a squeezing action will cause the ends to by-pass one another and the teeth to become engaged. The resulting grip is said to be capable of withstanding a pull of 5,000 lb. It is said that, since engagement of all of the teeth is not necessary, the grips may be used with timbers of various thicknesses.

The grips are fashioned with a swelled shank to provide an effective seal against entrance of moisture into the hole in

TIME-SAVER CARD for your convenience in obtaining, without obligation, more information on any one or more of the new equipment items featured on this and following pages.

3/15/47

RAILWAY AGE, New York 7, N. Y.

Circled below are items on which I request more information

☐ CATALOG ☐ SALES OFFICE ☐ PRICE INFORMATION

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	

NAME .....

TITLE OR POSITION .....

COMPANY .....

CO. ADDRESS .....

CITY ..... ZONE STATE .....

FIRST CLASS
PERMIT No. 153
(Sec. 510 P.L.&R.)
New York, N. Y.

BUSINESS REPLY CARD
No postage necessary if mailed in the United States

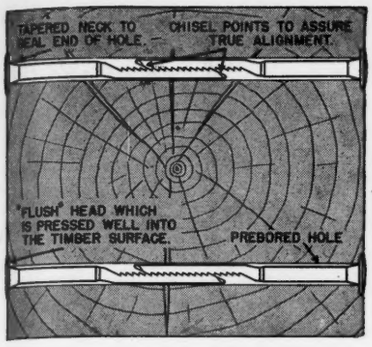
2c POSTAGE WILL BE PAID BY

RAILWAY AGE

30 Church Street

Readers' Service Dept.

New York 7, N. Y.


TAPERED NECK TO SEAL END OF HOLE.
CHISEL POINTS TO ASSURE TRUE ALIGNMENT.
"FLUSH" HEAD WHICH IS PRESSED WELL INTO THE TIMBER SURFACE.
PREBORED HOLE

The Oliver Timber Grip applied to a crosstie

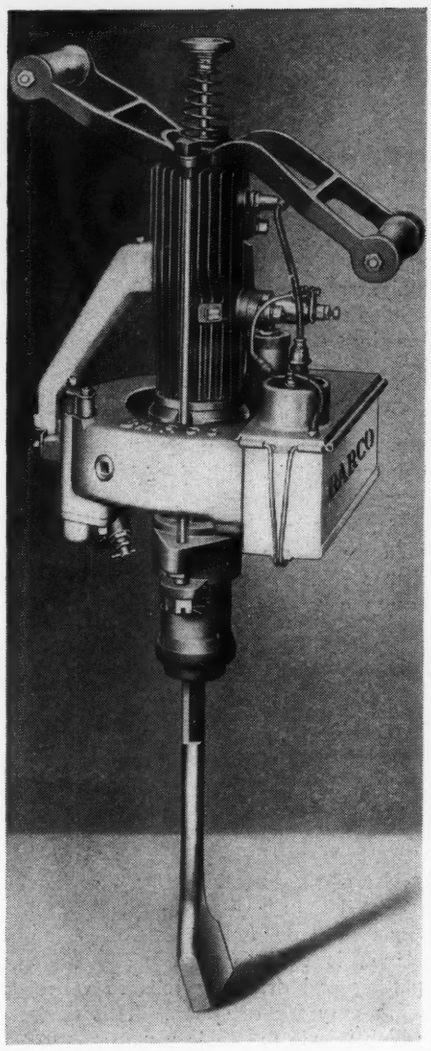
the timber. Forcing the heads of the grips into the surface of the timber is said to prevent any lessening of the tension between the two members, even if shrinkage should occur after the assembly is completed. For laminated construction, the grips can be used as stitch bolts to hold separate timbers together. At present the Oliver Timber Grips are made to fit timbers up to 12 in. in thickness. Larger grips are to be developed in the future.

3. *Pyresote Treatment*

Pyresote, a compound for timber treatment manufactured by the Protexol Corporation, Kenilworth, N. J., has recently been improved to increase its fire-resistant and decay-resistant properties. This compound is applied in an aqueous solution and, in some exposed locations was found to have some degree of solubility which enabled the treated wood to regain some of its native combustibility. The recent improvements are said to have increased the permanence of the treatment and, at the same time, to have improved the fire-resistant qualities of the treatment by insulating the inner layers of wood.

4. *Tytamper Improved*

A new model of the Barco Tytamper, a self-contained tamping machine, has been announced by the Barco Manufacturing Company, Chicago. The new model, known as the K-3 Tytamper, is said to incorporate a number of improvements over its predecessor, the TT-3. In outward appearance the Model K-3 is similar to the TT-3, with the battery-ignition system and gasoline tank mounted on the Tytamper frame



The improved Barco K-3 unit Tytamper

to eliminate the separate battery and connecting cables used in earlier Barco models. One of the principal improvements to be found in the K-3 is in its reduced weight. Weighing only 70 lb. with the tamping bar, it is approximately 9 lb. lighter than the TT-3.

The new unit tamper is powered by a single-action, two-cycle engine in which the explosion of the gasoline charge in the combustion chamber drives the piston downward to strike a blow on an anvil which transmits it to the tamping bar.

The piston is returned by the action of a spring. The engine is started by means of a push-rod starter located on the top of the cylinder.

5. *Crossing Gate*

The Buda Company, Harvey, Ill., announces the development of a new electrically-operated crossing gate specially designed to conform with the specifications of the Association of American Railroads as to visibility, construction and operation. Designated as the Model 71 Safety Gate, it is designed for mounting on standard 4-in., 5-in. or 6-in. signal masts, and can be operated automatically by track circuit or arranged for manual control.

The gate mechanism is powered by a battery and is enclosed within a metal

Below — The Buda Model 71 automatic crossing gate

For further information about these products, use the post card on page 543.

weatherproof case which is equipped with a hinged cover to facilitate inspection and maintenance. A feature of the mechanism is a specially-engineered motor, which is said to have ample power to operate gate arms up to 40 ft. in length. The motor also acts as a generator while the gate is being lowered, thus restoring energy to the battery, and acting as a brake to regulate the lowering movement. In case of power failure, the gate lowers automatically by gravity.

One of these gates has been in continuous operation at a test installation for more than two years—operating outside in all kinds of weather.

During this time, more than 825,000 raisings and lowerings of the gate have been made, and it is reported that no repairs or adjustments have been required.

6. *Locomotive Crane*

The recent development of a locomotive crane of 40-tons free capacity and 80-tons outrigger capacity, which can be powered by either a Diesel-mechanical or a Diesel-electric drive, as desired, is announced by the Industrial Brownhoist Corporation, Bay City, Mich.

When operating as a free unit, this crane is reported to have a maximum traveling speed of 20 m. p. h. and may be used for all types of lifting service, such as grab-bucket work, scrap-handling service, magnet lifting, and a variety of other uses.

When outriggers are employed, its uses include the erection of steel in bridge and building work, the rerailing of cars, other emergency service within its capacity, and other work of a heavy nature.

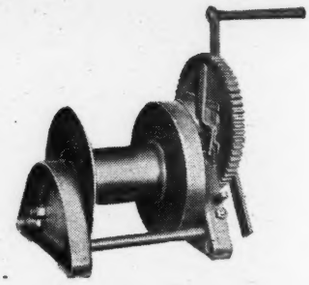
The crane is equipped with a patented Universal-type boom head, which incorporates an integral offset extension arranged in such a manner that sheaves may be added or removed as desired. This arrangement of the boom head is said to give maximum head room when hoisting loads at a short radius. The crane is equipped with a monitor-type cab which is said to afford the operator a 360-deg. range of vision. It is mounted on a heavy-duty car body, equipped with 6½-in. by 12-in. A. A. R. trucks.

Anti-friction bearings are used in all essential places, including the hoist drums and the boom-tip sheaves. A safety clearance of 14 in. is provided between the car body and the revolving upper works of the machine.

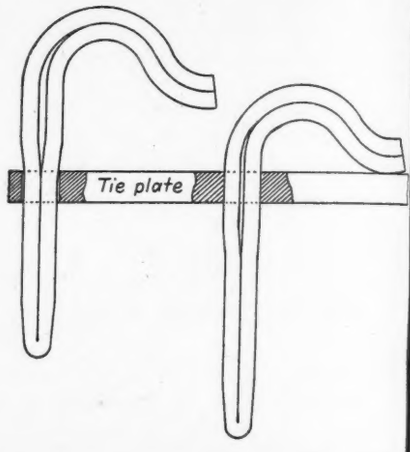
The Industrial Brownhoist 40-ton locomotive crane

7. *Lightweight Winch*

Use of the Handiwinch, a new hand-operated winch manufactured by the American Hoist & Derrick Co., St. Paul, Minn., is said to make many lifting, pulling and dragging jobs in railroad work easy for one man. This device, which is said to enable a man to lift or pull loads up to 10,000 lb., weighs 95 lb. and can be easily carried by one man and set up for immediate use. A tail yoke attached by a steel shaft provides an anchor for temporary set-ups, where it is not necessary to bolt down the winch. The unit has a heavy frame of cold-rolled steel, a three-point side-bearing design for rigidity, cut teeth on the gears, and a simple arrangement for slipping the gear for free spooling.



The Handiwinch is adapted to many uses



Drawing of the anchor spike manufactured by Bermuth, Lembke Company, showing the compression of the spread between the leaves of the shank, and the manner in which the toe of the hook exerts pressure on the plate to hold it firmly to the tie

8. *Tie Plate Anchor Spike*

The Bernuth, Lembcke Company, New York, has developed a new type of spike for anchoring tie plates firmly to the ties and thereby reducing tie abrasion, which is also said to be highly effective in maintaining correct gage. This spike is essentially a two-leaved spring, made of high-carbon, heat-treated spring steel, shaped in the form of a hook or arc with a straight shank. Weighing approximately 1 lb., the spike is driven through the tie plate with the arc parallel with the rail. The intention is that the spikes will be driven into pre-bored holes in the ties.

Because of the distance of the shank from the toe of the spike, it is said

For further information about these products, use the post card on page 543.

that any forces which might tend to raise the tie plate and thus loosen the spike in the wood will react laterally and not vertically on the shank. This fact, coupled with the holding power of the square shank in the pre-bored hole, is said to result in the firm anchorage of the shank in the tie. Special spike pullers are available for use as required.

Driving the spike 3/8 in. to 1/2 in. deeper after the toe has made contact with the surface of the tie plate, deflects the head of the spike and is said thereby to produce a static pressure of several hundred pounds on the surface of the tie plate, anchoring it firmly to the tie.

An exceptional feature of the new spike is the "built-in" spread between the leaves of the shank, which is so located as to engage the walls of the tie plate lag hole when the spike is driven to final position. This spread is compressed approximately 1/16 in. by the walls of the hole, thereby taking up the play, or tolerance, between the shank and the tie plate.

Because of this feature it is said that the destructive horizontal movement of the tie plate which causes tie abrasion and plate penetration is greatly reduced.

This spike is said to be independent of all other track components, may be used out-of-face or on new ties only, and may be applied at any stage of maintenance operations, since the requisite pre-boring of the ties may be done either at the treating plant or in the field.

9. *Lightweight Timber Roof Truss*

A lightweight trussed-rafter roof truss for use in small buildings, such as tool houses and storage sheds has been developed by the Timber Engineering Company, Washington, D. C. Designed to be spaced on 24-in. centers, these trusses afford clear spans of 20 ft. to 30 ft. without interior posts or partitions.

The framing of the new truss is said to be remarkably simple and to require only conventional sizes of lumber, which are fastened with Teco split ring connectors.

It is said that only four basic members are incorporated in each truss, a feature which makes for rapid and economical fabrication, either in the shop or in the field.

No special wall framing is said to be required for these trusses as they can be seated on ordinary stud walls and anchored with Teco Type-A framing anchors. The trusses are designed to support a combined live and dead load of 45 lb. per sq. ft.

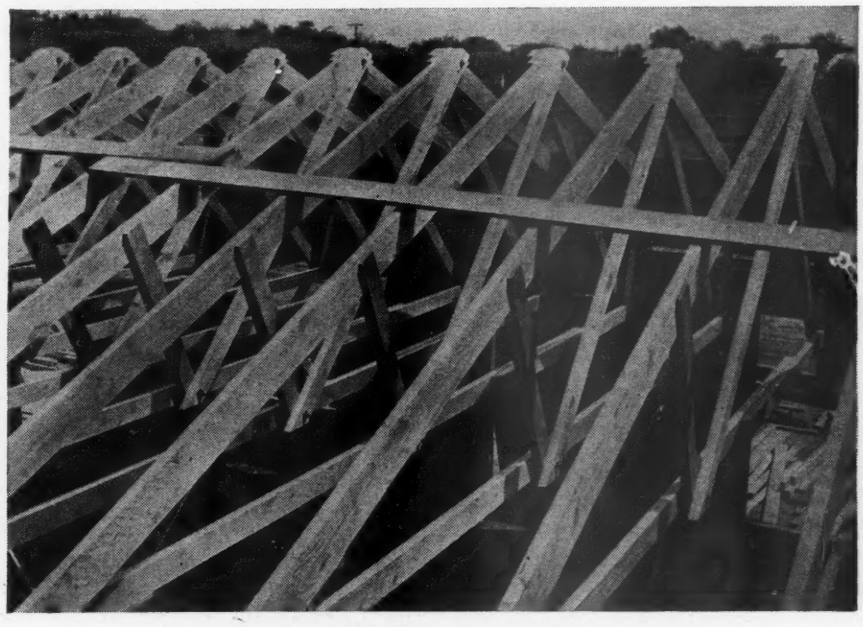
The Tracto-Shovel mounted on an Allis-Chalmers HD-5 tractor

10. *Tracto-Shovel*

A new type tractor-shovel, the Tracto-Shovel, and the first of a line of tractor equipment to be built by the newly-organized Tractomotive Corporation, Findlay, Ohio, has recently been announced. Designed specifically for mounting on the new Allis-Chalmers HD-5 tractor, the Tracto-Shovel is said to be unusually versatile for construction work where shoveling and loading operations are required.

The shovel bucket is mounted at the forward end of a pair of pivoted push arms which are raised and lowered by hydraulic means. A crank, also hydraulically controlled, governs the tilt of the bucket and, when the bucket is full, it is said to be automatically tilted back into the carrying position. Another advantage claimed for the unit is that clear vision is provided for the operator with the bucket in any position.

The HD-5 tractor is a new addition to the line of crawler tractors manufactured by the Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Rated at 37 hp. and weighing approxi-

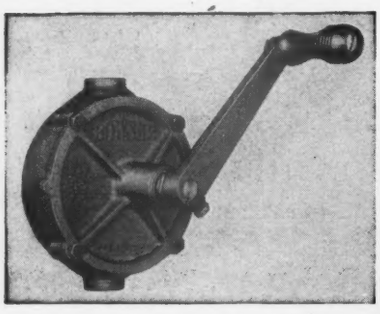


An application of the Teco trussed-rafter roof truss

For further information about these products, use the post card on page 543.

mately 11,000 lb., the new unit has five forward speeds up to nearly 6 m. p. h. It embodies such features as two-cycle Diesel power, 1,000-hr. track lubrication, and 10,000-lb. draw-bar pull.

It is said that the tractor has superior balance and that this factor, coupled with its tractive power and speed, makes it suitable for many uses in heavy construction work. The major assemblies of the tractor are said to be removable for quick repair or replacement, thereby simplifying the work of maintenance and servicing.



A Bowser rotary hand pump

11. *Rotary Hand Pump*

Bowser, Inc., Ft. Wayne, Ind., is now producing a rotary hand pump that is said to have several advantages. Of the vane type, with an aluminum rotor, this pump has a capacity of 10 gal. per min. at normal cranking speeds. The use of rust-proof materials in the rotor, vane and springs is said to eliminate the freezing action caused by rust formed by condensation within the casing when the pump is not used frequently. Suction and discharge ports are threaded for ¾-in. iron pipe.

The pump is furnished as a pump only; as a barrel pump with suction pipes, bung attachment and spout; and as a complete refueling unit, with discharge pipes, combination hose holder and vacuum breaker, gasoline hose and aluminum nozzle.

12. *Ansul Chemical Fire Extinguisher*

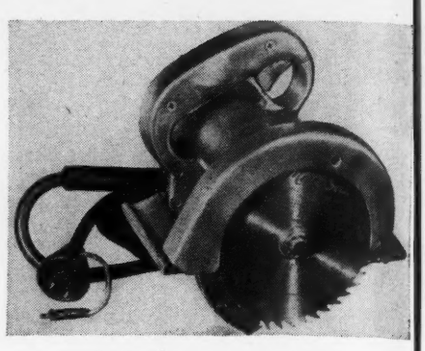
A new dry-chemical fire extinguisher, which is said to have the advantages of simple and fast operation and quick recharging, has been developed by the Ansul Chemical Company, Fire Extinguisher division, Marinette, Wis.

This extinguisher embodies a cylinder containing a dry powdered chemical, a pressure cartridge of carbon dioxide, and a discharge hose with a squeeze-type nozzle handle. To operate the extinguisher, the cartridge is punctured by means of a small lever, releasing carbon dioxide within the cylinder, thereby causing the powdered chemical to be expelled through the discharge hose. This chemical, on striking flame, is said to release 1,100 times its volume in flame-smothering gases. Other advantages claimed for the new extinguisher are greater heat-shielding protection for the operator, longer range of the chemical stream, and increased fire-fighting capacity without increased weight.

One of the Ansul dry-chemical fire extinguishers

13. *Power Hand Saw*

A new six-inch, portable electric hand saw, the Model 60 Mallsaw, is now offered by the Mall Tool Company, Chicago. This unit, which weighs but 8¾ lb., is capable of cutting through rough dressed lumber up to two inches in thickness. It is said to be well suited for all types of light carpentry work and, in addition, can be equipped with a Mall abrasive disk for grooving out mortar joints, for tuck pointing, or for scoring limestone, tile, concrete and other aggregate compositions. The Model 60 Mallsaw may be obtained with

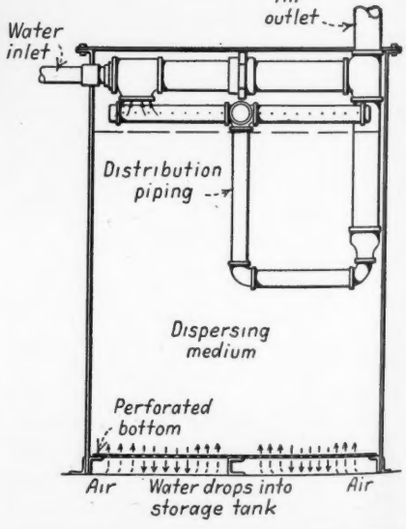


The Model 60 Mallsaw

a 110-volt or a 220-volt motor, suitable for use with alternating current or direct current, as desired. The saw has an aluminum die casting housing which not only minimizes the weight, making the saw easier to handle, but which is said to give it better balance for use in either hand.

14. *Decarbonator for De-Ionizing*

The Dearborn Chemical Company, Chicago, has developed a new Liquimatic decarbonator of metal construction to replace the wooden decarbonators formerly used with this company's water de-ionizing plants. An outstanding advantage of the new decarbonators is their compact design compared with wooden decarbonators of similar capacity. For example, one of the new units, 60 in. in diameter by 60 in. high, capable of handling 75 to 100 gal. per min., will replace an older model 19 ft. in height.

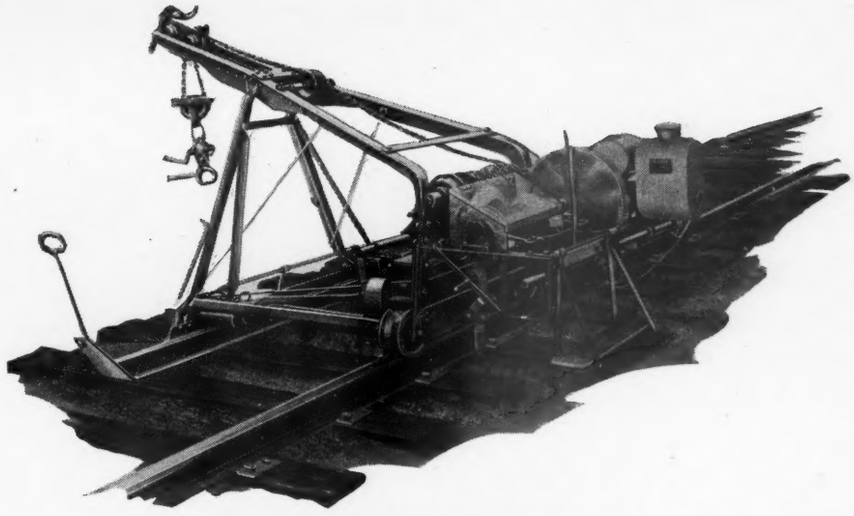


Showing construction of the Dearborn Chemical Company's new decarbonator

For further information about these products, use the post card on page 543.

Other advantages claimed for the new decarbonators are fewer mechanical parts and reduced power consumption without loss in efficiency. The new units are entirely self-contained and require no blowers, air heaters, compressed-air connections or similar accessories.

The necessary circulation of air is provided by means of a special ejection system which utilizes the energy of the incoming water in combination with an efficient dispersing medium. This system is said to break the water into a thin liquid film, thereby expediting release of the dissolved gases.



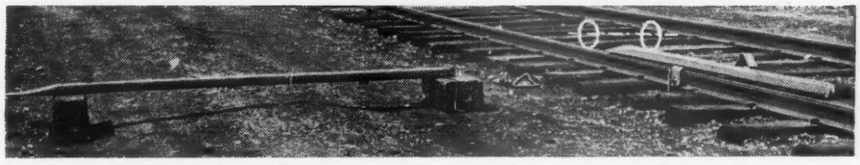
The improved Meco Power Rail Layer

15. *Rail Layer Improved*

Several improvements have been made in the Meco Power Rail Layer of the Maintenance Equipment Company, Chicago, including the application of a universal rail grip at the center of the machine. The universal rail grip is designed to engage the base of the rail upon which the rail layer is mounted so that the machine will function equally well on standard T-rails or on Headfree rails.

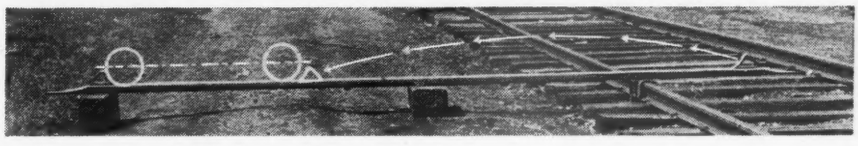
The new grip is said to be interchangeable with the rail grips formerly used on these units and may be applied to Power Rail Layers already in use.

Another improvement is the provision of a set-off and transfer as auxiliary equipment for the rail layer to facilitate removing the unit from the track or transferring it to the opposite rail or to an adjacent track, provided the track centers in the latter case do not exceed 14 ft. With the set-off, four men are said to be able to handle the machine easily, a task which formerly required a full gang using lifting handles. Hangers are provided beneath the rail layer to carry the parts of the set-off and transfer.



Above—Indicating the position of the rail layer as it is mounting the set-off

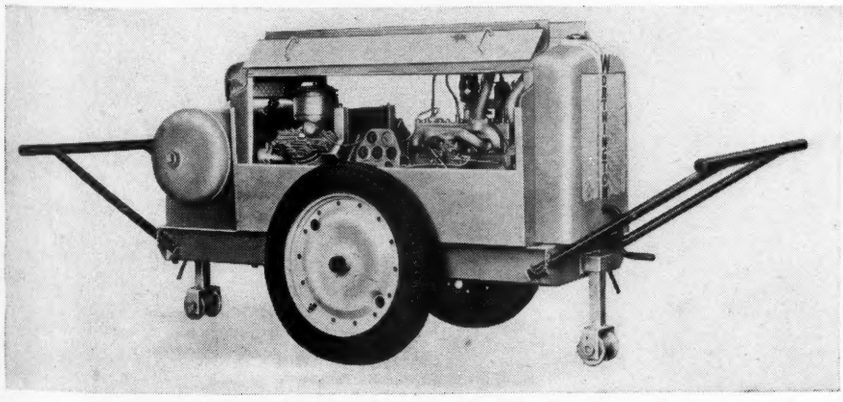
Below—Indicating the position of the rail layer when clear of traffic on the set-off



16. *Portable Compressor*

An improved model of the Blue Brute 60-cu. ft. Hand-I-Air portable compressor is announced by the Worthington Pump & Machinery Corp., Harrison, N. J. Although incorporating the basic features of the earlier model, the new Hand-I-Air features a reduction in weight of 400 lb.

The unit is mounted on 6.00-by-16 pneumatic tires and is said to be exceptionally easy to handle into position. The side curtains of the machine are hinged permanently for greater convenience, and tool box space has been provided for carrying necessary accessories. A "fuel saver" control, which is said to rate the compressor to the load, has been included for the purpose of assuring maximum economy of operation of the compressor.

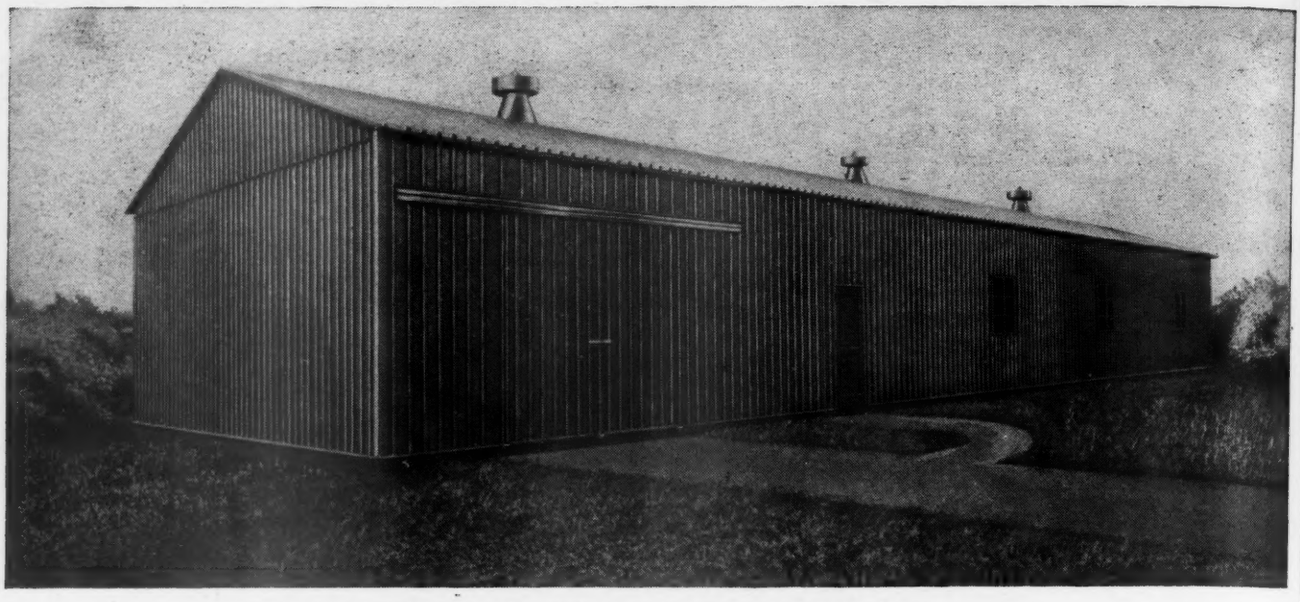


The Worthington Blue Brute 60-cu. ft. Hand-I-Air compressor

17. *Portable Generators*

The Homelite Corporation, Port Chester, N. Y., is now producing two gasoline-powered, 180-cycle portable electric generators for use with high-cycle electric tools such as grinders, drills, nut runners, and chain saws. The new generators include a single-cylinder

For further information about these products, use the post card on page 543.



One of the self-supporting buildings designed for light-load requirements

2,500-watt unit and also a two-cylinder 5,000-watt machine.

The 2,500-watt generator, which has an output of 230 volts, weighs 129 lb. complete with the gasoline engine. It is pointed out that the development of these units permits high-cycle tools, heretofore largely confined to use in shops, to be used at outlying points in maintenance and construction work.

18. *New Designs for Small Buildings*

The International Derrick & Equipment Co., Columbus, Ohio, is introducing into the railroad field three new designs of small steel buildings, which were developed during the war. The designs include a self-supporting type of building, in which the skin of the structure, namely, the side walls and roof sheets, is said to sustain all of the loading; a rigid-frame type, for use where added overhead room is required in the interior of the structure; and a mill type, which follows the conventional column-and-roof-truss design, but requires fewer supporting members.

Each design utilizes a new type of steel sheeting formed with deep ribs spaced on close centers. The use of this material, said to be capable of spanning greater distances while still maintaining the required wind and roof-load requirements, is claimed to reduce the number of supporting members required in structures of this type.

The self-supporting type of building is suitable for use with spans up to 24 ft. and heights of 12 ft. or less at the eaves. The length of the structure is not limited. These buildings are said to require only a minimum number of connecting members to join the ribbed-steel sheets. They are said to be weathertight and can be insulated if desired. Various types of ventilators, louvers, pivoted windows and doors can be used with the structures to meet the requirements of various applications.

The rigid-frame buildings employ continuous column-and-rafter or rigid-bent supports which require no bracing at the eave line. This construction results in a clear space within the structure, extending approximately to the height of the roof. The added strength resulting from the use of the deep-ribbed sheets permits the bents to be placed on 20-ft. centers. The buildings of this type are available in spans up to 80 ft., heights up to 16 ft., and in all lengths in multiples of 2 ft.

The mill-type building follows a conventional column-and-roof-truss design with the supporting members spaced on 20-ft. centers.

They are offered in standard sizes up to 150 ft. in span, 24 ft. in height, and in any length in multiples of 2 ft.

Several roof designs are available for use with buildings of this type.

One of the Homelite high-cycle generator units and some of the tools that can be used with it, including a nut runner, a track grinder, a reversible drill and a one-man chain saw

19. *Ballast Disker*

A new and more powerful model has been added to the line of medium-size track-mounted ballast diskers produced by Fairmont Railway Motors, Inc., Fairmont, Minn. This unit, known as the

For further information about these products, use the post card on page 543.

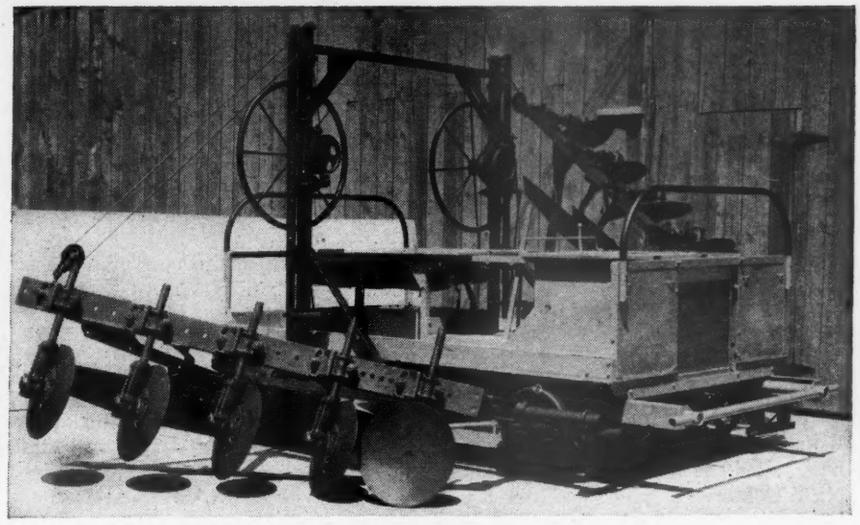
W62 Series A, is designed for use in chat, cinder, gravel or similar ballast and is mounted on a self-propelled, 40-hp. carriage which has a four-speed transmission. A directional gear permits the four speeds to be used in either direction.

The disking equipment embodies a set of five 18-in. steel disks on each side. These are mounted on a welded-steel disk frame, the inner end of which is hinged to the carriage by means of a knuckle joint which allows the frame to float within limits and enables it to ride over most hidden obstructions. The disks revolve on tapered roller bearings and are mounted so that they may be turned or tilted to give any desired working effect. Large hand wheels, cable-connected to the supporting frame, control the cutting depth of each set of disks, and a hand brake is provided to hold each set in the desired position.

Protection against occasional derailments of the front end of the unit, due to the disks striking hidden objects, is supplied by a safety skid which is said to support the carriage when the wheels leave the rail and to prevent them from dropping onto the ties. Rerailing is then accomplished by raising the front end only an inch or two by means of extension lift handles provided for this purpose.

A hand-operated hydraulic lift and turntable facilitate turning the unit or removing it from the track.

An operator and two helpers are required to handle the unit, which weighs 2,100 lb. In the winter season, the disking equipment may be removed and the carriage used as a gang car.



The new Fairmont W62 Series A ballast disking machine

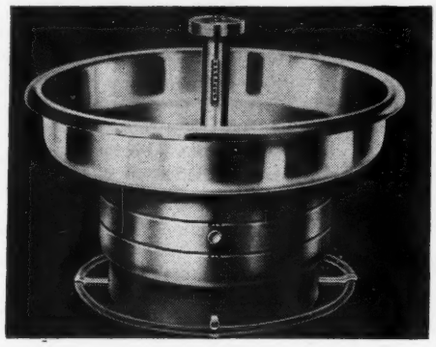
20. *Metal-Clad Conduit*

The Ric-Wil Company, Cleveland, Ohio, is now producing copper and aluminum-clad conduit specifically designed for overhead steam, oil, hot water and brine distributing lines. The conduit is made of any desired section or kind of pipe, which is covered with insulation consisting of cylinders of asbestos pipe covering. The asbestos layer is then coated with asphalt to any desired thickness.

As a final operation, the pipe is tightly wrapped with a sheet of thin electrolytic copper or of aluminum, which is said to make a perfect bond with the hot asphalt. The use of the thin metal sheets is said to protcet the insulation from damage and to have advantages of durability, permanence and strength. Further, shop fabrication is said to eliminate 80 per cent of the field work.

21. *Group Wash Fountains*

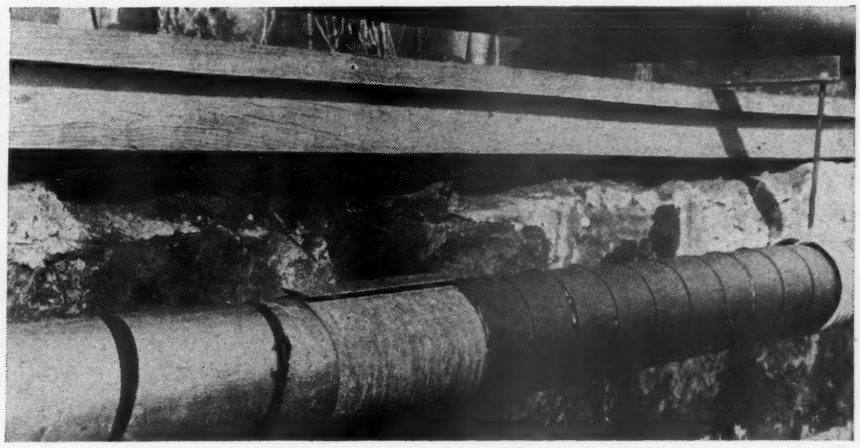
The Bradley Wash Fountain Company, Milwaukee, Wis., has announced that the manufacture of enameled-iron and stainless-steel group wash fountains, which was discontinued during the war, has been resumed, and that the fountains now being produced have been completely redesigned to present the maximum in hygienic appearance, at the same time providing the strength and durability to withstand severe use. The all-metal fountains are available in diameters of 54 in. and 36 in. and may be obtained as circular or semi-circular units that are said to meet every plumbing condition. Hand or foot controls are available for use with either type. The enameled-iron bowls are one-piece pressings of deep drawing steel and are finished in white acid-resisting vitreous enamel. The stainless-steel bowls are pressed from heavy-gage 18-8 stainless steel.



One of the Bradley stainless-steel group wash fountains

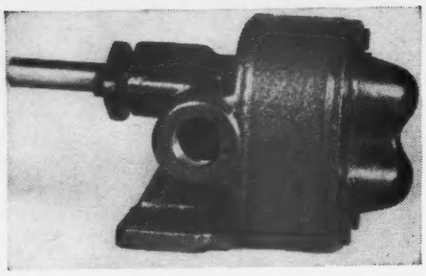
22. *Rotary Pumps*

A new line of general-service rotary pumps, known as GA rotary pumps, has been introduced by the Worthington



Showing lengths of copper-clad and aluminum-clad conduit joined by a coupling

For further information about these products, use the post card on page 543.



A Worthington GA rotary pump

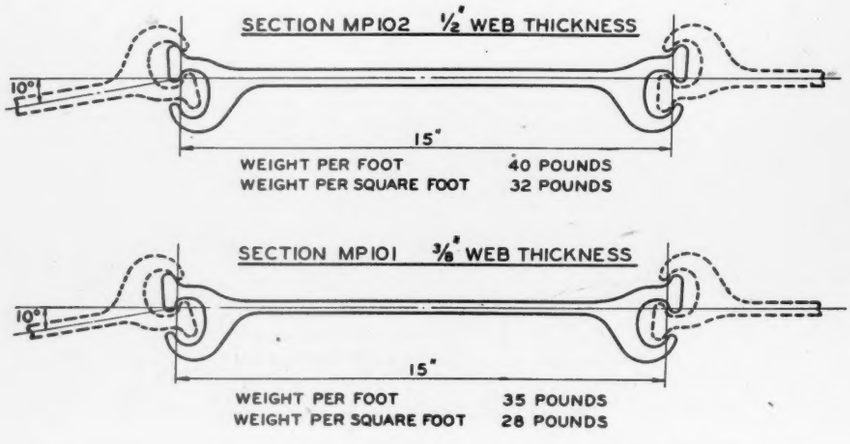
Pump & Machinery Corp., Harrison, N. J. Available in six sizes, with capacities up to 51 gal. per min., and in various mountings, these pumps are said to be well suited for handling fuel oil, Diesel oil, and lubricating oil, and for use at lubricating-oil reclaiming plants and locomotive grease sheds. The pumps are said to be designed for durability under severe service requirements.

Design features of the new pumps include four-bearing construction and special herringbone rotors. A built-in pressure-lubrication system is said to eliminate the need for external lubrication and the possibility of contaminating the liquid. Another feature claimed for the new pumps is easy maintenance resulting from a simple design. Said to be suitable for direct connection to electric motors of any make, the GA rotarys may be obtained either foot-mounted or flange-mounted, with adjustable stuffing box and mechanical seals. They are also available with oversized unloader-type relief valves.

23. *Straight-Web Sheet-Piling*

The Carnegie-Illinois Steel Corporation, Pittsburgh, Pa., has developed two new sections of heavy-duty, straight-web sheet piling, each of which affords a saving in weight of approximately 3 lb. per sq. ft. compared with older sheet-piling sections manufactured by this company. The new sections, known as MP-101 and MP-102, weigh 28 lb. and 32 lb. per sq. ft., respectively, and are said to offer an interlocked tensile strength of approximately 8,000 lb. per lin. in.

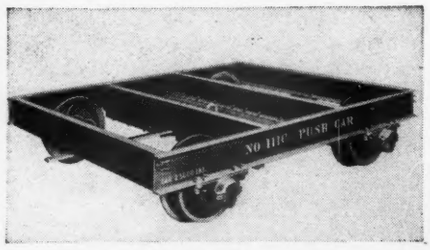
The design of the new piling is such that it lends itself to use for special applications where welded or riveted connections are required. When assembled in pile-wall construction, the new sections may be driven in a straight line or deflected as much as 10 deg. per section to present a curved appearance.



The new Carnegie-Illinois straight-web sheet-piling sections

24. *Heavy-Duty Push Car*

Fairbanks, Morse & Co., Chicago, has developed a new heavy-duty push car, with a load capacity of 25,000 lb., designated No. 111C. The new car is of all-welded, steel-frame construction, utilizing seven-inch structural channels for the side sills and for four cross sills, with the cross members butt-welded flush with the side sills. This construction is said to make the unit unusually strong and to eliminate the possibility of the cross sills being broken away from the side sills when heavy loads are placed on the car.



The Fairbanks, Morse 111C heavy-duty push car

The car is equipped with a one-piece, through-type drawbar, bolted to the bottom of each cross sill, and with a center eye-bolt for use when lifting the car on and off the track. Stake pockets are located at the four corners.

The car has 16-in. cast-iron wheels with chilled treads, the wheels being loose-mounted on the axles.

The axles are 3 in. in diameter and are fabricated from high-carbon heat-treated steel. Plain babbitt bearings are used throughout.

The overall length of the 111C push car is 95⅛ in. and its height is 17½ in. above the top of rail. It weighs about 1,640 lb.

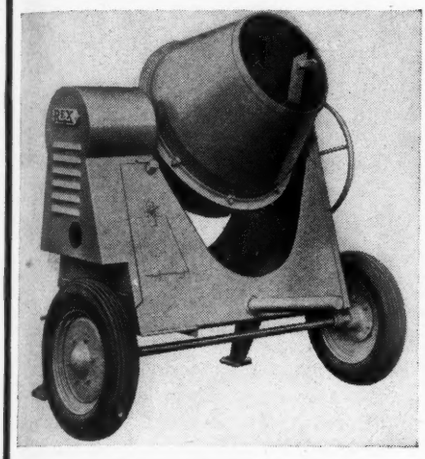
25. *Sanding Valves for Diesels*

The Ross & White Co., Chicago, has developed a special type of valve for controlling the delivery of dry sand to the sand boxes of Diesel road engines and switchers. This valve, known as the B. & M. non-leaking, opening-and-closing valve, is attached to the end of the flexible hose leading from the dry sand bin, and consists of a section of 2-in. metal pipe, about 18 in. in length,

The Ross & White B. & M. sand valve in the open position

For further information about these products, use the post card on page 543.

with a lever-controlled sliding gate at the outlet end. It is said that the use of this valve enables the operator to introduce the sand into the sand boxes on Diesel engines without difficulty and permits him to have direct control of the sand flow as he observes the filling up of the boxes with sand flowing by gravity from the overhead storage tank.



Rex 3½S tilting mixer

26. *New Rex Concrete Mixer*

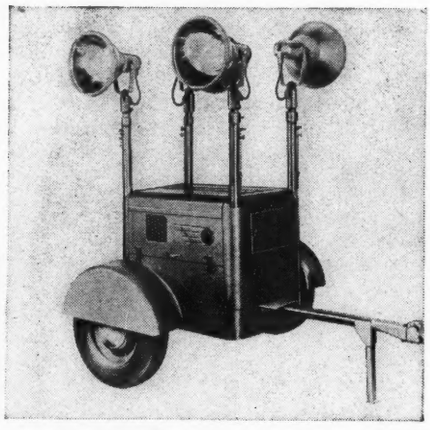
A new end-discharge tilting mixer, known as the Rex 3½ S, has been announced by the Chain Belt Company, Milwaukee, Wis. Mounted on two pneumatic-tired wheels, the new model is approximately 150 lb. lighter in weight than the former Rex mixer of similar size. The wheel-tread width of the new unit has been increased to 62 in. and the mixer body has been cradled between the wheels to obtain a lower center of gravity, a feature which is said to have advantages in faster and safer towing.

The drum of the mixer is of all-welded pressed steel and is driven by a ring gear, said to be easily replaced when necessary.

The tilting of the drum is controlled by a 24-in. hand wheel, equipped with a ratchet-type lock. Other features of the unit include a choice of two engine sizes, an enclosed roller-chain drive, cantilever springs and a removable pole for towing.

27. *Portable Floodlight*

D. W. Onan & Sons, Minneapolis, Minn., is now offering for railroad use the Onan Commercial Floodlighter, a readily portable independent electric light source. This unit, mounted on a trailer, embodies an Onan 3,000-watt



The Onan Commercial Floodlighter

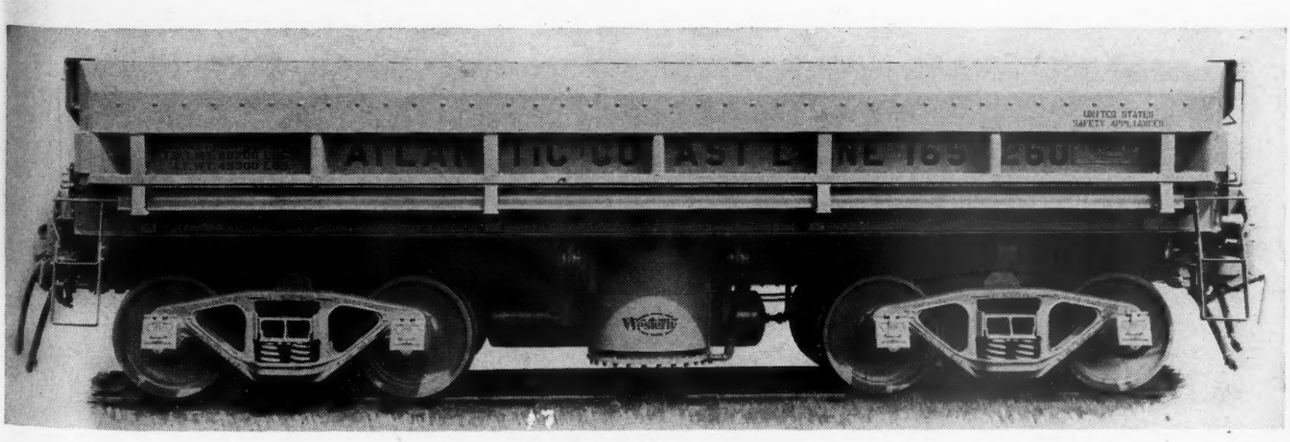
alternating-current electric plant and four 750-watt floodlights mounted on steel standards that may be raised to a height of seven feet. The floodlights may be rotated through 360 deg. horizontally and also may be moved through a wide vertical arc. Each floodlight is controlled by a separate toggle switch. A variety of floodlight combinations is available.

The electric generator is powered by a four-cycle, air-cooled gasoline engine which is said to give dependable performance, even in unfavorable weather. The engine has battery-powered, push-button starting, and the generator may be arranged for direct-current output for recharging the battery. The Onan Floodlighter is said to require only 0.183 gal. of fuel per kilowatt-hour when carrying full-rated loads.

28. *Side-Dump Car*

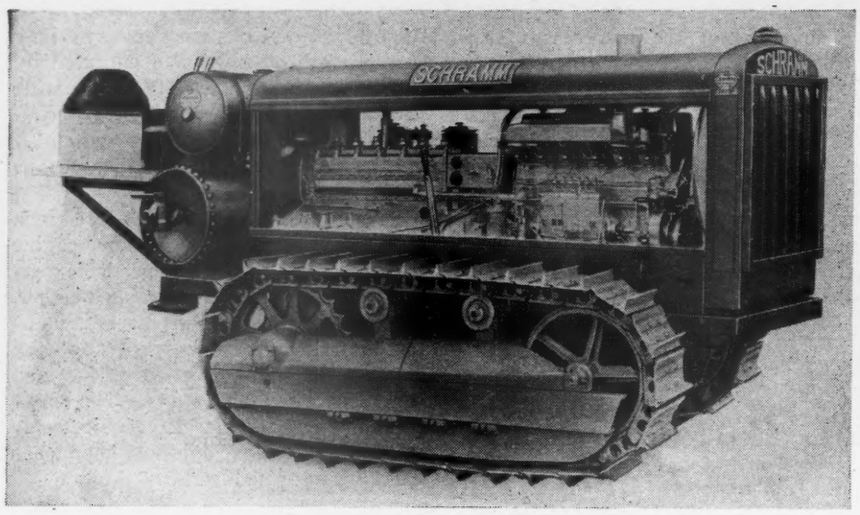
A new automatic air-dump car of 20 cu. yd. capacity, intended primarily for use in ditching service, has been developed by the Austin-Western Company, Aurora, Ill. The car is 23 ft. 6 in. long and is of the heavy-duty railroad type, with dual side pivots and drop doors. It is said that the car can be loaded to capacity quickly and efficiently because careful consideration was given in its design to the reach and loading ability of modern ditching equipment.

In dumping, the car floor assumes an angle of 50 deg. and material is said to be deposited well in the clear. When the car is in the dumped position, the drop door protects the track and ballast from the dumped material. Although the car is designed primarily for ditching work, its low weight, low center of gravity, stability in running and dumping, and quick-dumping feature, are said to make it suitable for all types of railroad service where the use of dump cars is indicated.



The Austin-Western 20-yd. air dump car

For further information about these products, use the post card on page 543.



One of the Schramm tractor-type compressors

29. *Tractor-Compressor*

Schramm, Inc., West Chester, Pa., has announced that it has resumed the production of tractor-type compressors for use in railway maintenance and that these units, formerly produced in one size only, are now available in a complete line with air delivery rates of 60, 105, 210, 315 and 420 cu. ft. per min. These compressors are mounted on running gear similar to a crawler tractor and both the tractor and the compressor are powered by the same engine. Comparatively narrow, they may be used at locations where clearance is limited, such as in narrow cuts and other restricted places.

30. *Bucyrus-Erie Scrapers*

TWO new scrapers, known as the G-38 and G-58, have been introduced by the Bucyrus-Erie Company, South Milwaukee, Wis. These are two-wheel back-dump units that are said to be ideal for utility dirt-moving operations. The G-38 scraper has a 3½-cu. yd. struck capacity and the G-58 has a struck capacity of 5 cu. yd.

31. *New Electrode for Welding*

The Tough Devil No. 1 electrode of the Champion Rivet Company, Cleveland, Ohio, designed especially for welding manganese frogs and other manganese parts, is now manufactured with an extruded coating instead of the former dipped coating. The extruded coating on the electrode is said to permit the application of sufficient current to make a smooth, thin weld that eliminates excessive grinding time. The Tough Devil No. 1 is a nickel-manganese electrode, containing 12 to 14 per cent manganese and 3½ per cent nickel, and affords a protected arc.

32. *New Pressure Filter*

The Pur-O-Cel water filter, a pressure-type filter utilizing diatomaceous earth, has been introduced by %Proportioners, Inc.%, Providence, R. I.

This filter is said to be capable of producing clear brilliant water, removing all amoebic cysts and partially removing bacteria. Other uses of the Pur-O-Cel filter include the filtering of various oils and liquids for industrial purposes and the removal of oil from condensate.

The filters for industrial processes are said to be designed so that all filtered liquids can be expelled. The water filters are cleaned by backwashing, which, it is said, can be accomplished without disassembling them, and which utilizes only a comparatively small volume of water. The filters are produced in four sizes, with filter areas ranging from 192 sq. ft. to 60.3 sq. ft.

All models are equipped with influent and effluent gages, air-release valves and pipe connections.

33. *Power Rail Drill*

A new portable power track drill, which is claimed to be capable of drilling a hole in less than a minute, has been added to the line of track equipment of the Railway Track-Work Company, Philadelphia, Pa. Designated as Model P-34-A, this drill is 30 in. high, 20 in. wide, 34 in. long, and weighs 143 lb. Power for driving the drill is supplied by a 1½-hp. air-cooled gasoline engine through a guarded V-belt, countershaft, and gear-reduction unit. The engine and drill assembly are mounted on two parallel steel rods which are attached at one end to a clamp that fits over the track rail, and at the other, to two adjustable supporting columns.

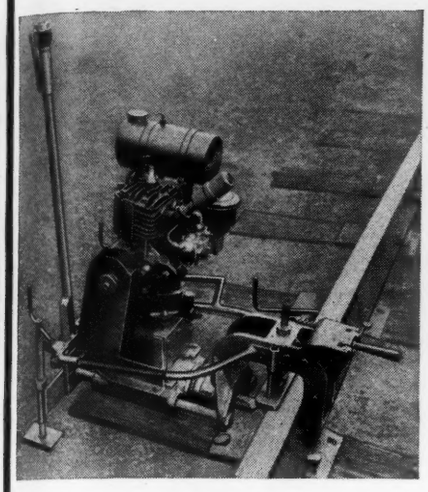
Lateral travel for feeding the drill is accomplished by a hand lever acting on a ratchet gear and rack, causing the entire power unit and drill to slide on the supporting rods. Adjustment of the bit to various rail heights is made by means of a small hand crank on a vertical screw through the rail clamp. The

A G-38 scraper ejecting a load of dirt

For further information about these products, use the post card on page 543.

machine is leveled on uneven ground by similar cranks in the adjustable supporting columns.

Other features claimed for the drill include an aluminum gear-reduction housing for light weight, ball bearings on all shafts, and a simple belt adjustment. A drill chuck for flat-beaded bits up to 1½ in. is supplied with the unit but a chuck can be furnished for square or tapered-shank drills if desired.

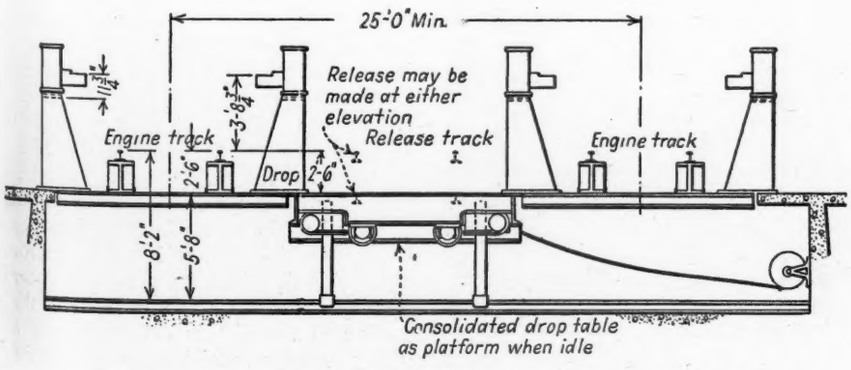


The Model P-34-A portable track drill

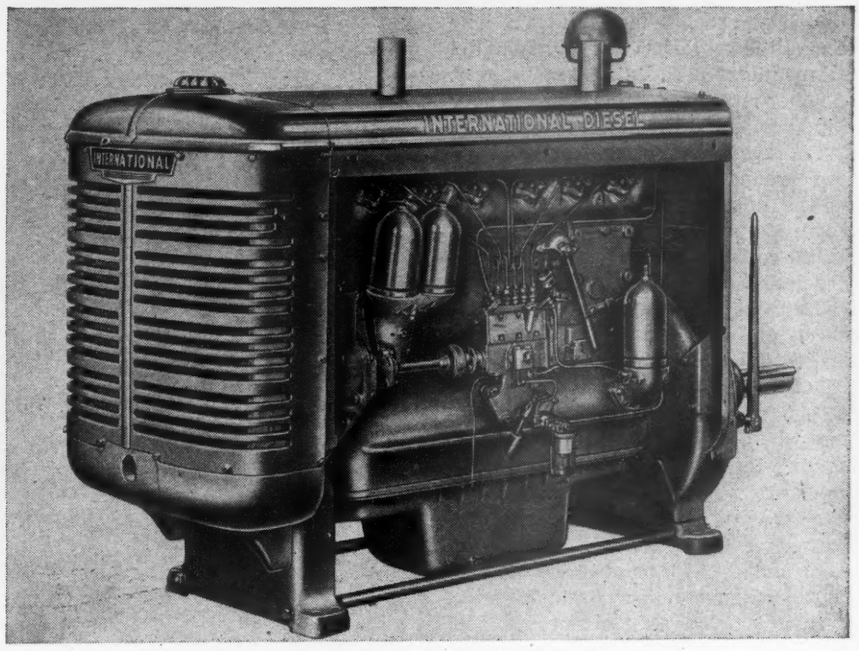
34. *Drop Table*

A new type of drop table having a shallow pit, designed for use at medium-size engine terminals, is now offered by the Whiting Corporation, Harvey, Ill. This table, known as the Whiting Consolidated drop table, is designed to serve one or two engine tracks and one release track, and has a drop of 2 ft. 6 in. It is particularly suited for use with stationary body supports.

The table top, which is not detachable, contains the entire mechanism, including four flanged wheels. The top is raised and lowered by four electrically-operated hoisting screws which engage the pit rails. When the table is in the lowered position the hoisting screws are raised into the clear, permitting the flanged wheels to ride on the pit rails during the lateral racking movement of the table to the release track. When not in use, the table is stationed at the release track.



Drawing of the Whiting Consolidated drop table installed with stationary body supports



The International Harvester UD-18A Diesel engine

35. *Diesel Power Units*

The production of two new Diesel power units, one with four cylinders and the other with six, with capacity ratings of 76 hp. and 125 hp., respectively, has been announced by the Industrial Power division of the International Harvester Company, Chicago. Known as models UD-14A and UD-18A, these units are applicable to a variety of equipment combinations, and are said to have relatively high compression and efficiency, and increased power output without increase in weight. These characteristics are attributed in part to a new cylinder-head arrangement, and to improved nozzles and redesigned combustion chambers. According to the manufacturer, special lubricating oils are not required for these engines because of the cooling and combustion characteristics. A new type oil-control ring is said to assure satisfactory cylinder lubrication without excessive oil consumption.

Both of the new models are equipped with integral, gasoline starting systems which function in the same manner as ordinary gasoline engines. After a brief, direct-flame cylinder warm-up, the movement of a single lever changes the engine from the gasoline starting cycle to four-cycle Diesel operation with compression ignition.

36. *Mahon Spray Booths*

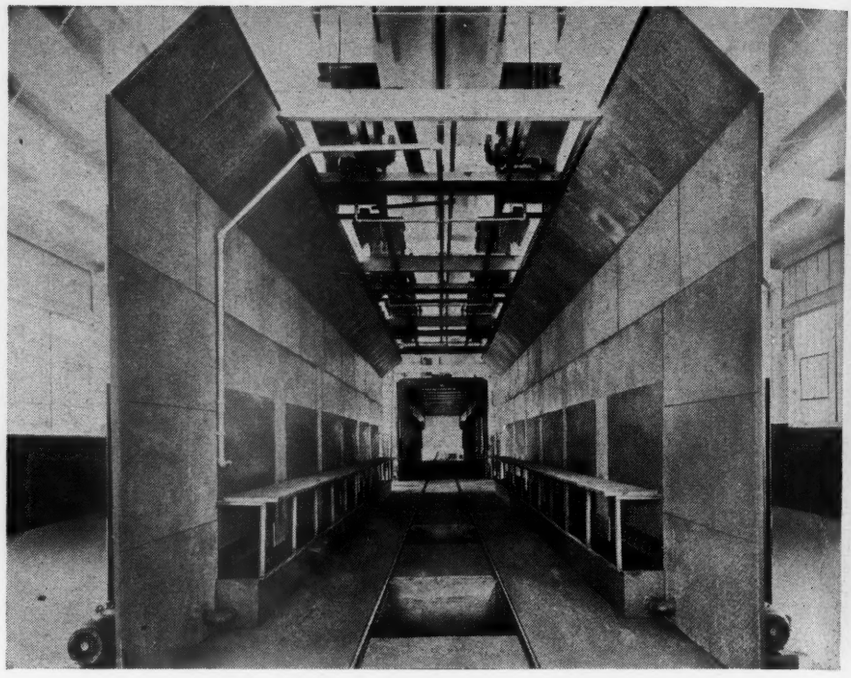
The R. C. Mahon Company, Detroit, Mich., manufacturers of Hydro-Filter booths for spray-painting work, has adapted the latter type units for use in the painting of railway coaches and cars.

The spray booth is open at the top and at each end and is erected within the

For further information about these products, use the post card on page 543.

paint shop to enclose the paint track. The walls of the booth serve primarily to aid in directing paint-laden air to the filters. The filter units are located near the floor of the booth, and the design is such that air is drawn from the top of the booth, down around the car being painted and into the filters. Here it is forced through a spray of water containing a special alkaline compound which causes the paint particles to coagulate upon contact.

The paint thus removed from the air collects and floats on the surface of the alkaline solution in sludge tanks on each side of the booth. The air is then passed through a battery of centrifugal eliminators where excessive moisture is removed prior to exhausting the air or recirculating it within the shop. Another development is a drying oven, often constructed as a continuation of the spray booth, and in which painted cars may dry quickly without danger from overspray or dust particles in the air.

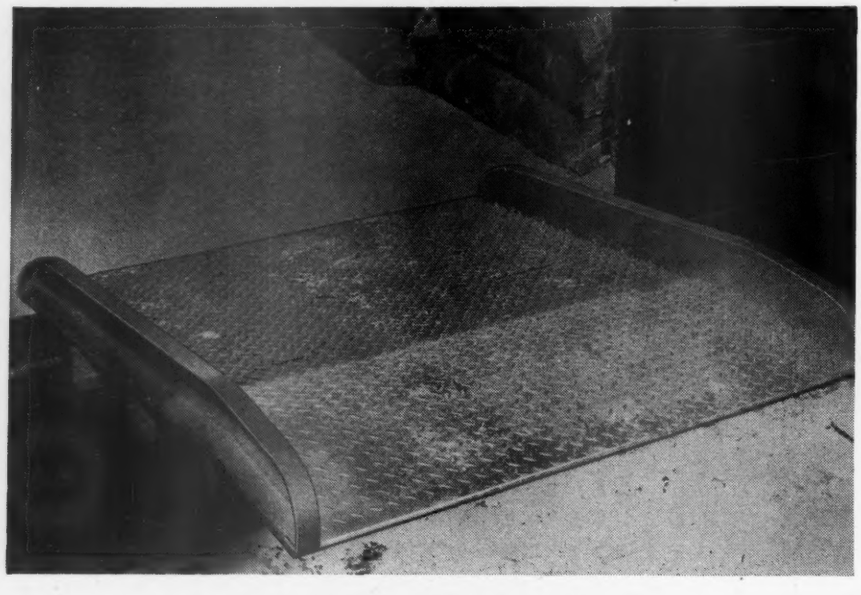


The Mahon Hydro-Filter spray booth

37. *Magnesium Dockboards*

The Magnesium Company of America, Chicago, is introducing into the railway field its Magcoa dockboards, these being lightweight magnesium-alloy units for bridging the spaces between freight cars and loading platforms, and similar openings. The dockboards may be obtained in some 530 standard sizes and capacities to meet various requirements. Also, they may be designed and fabricated to fit any particular loading operation, even where the axle loads of material-handling equipment, such as fork trucks, platform-lift trucks and hand trucks, are extremely heavy.

Constructed entirely of magnesium alloy, these dockboards are made with a raised-pattern safety tread or with a smooth-finish floor plate, as desired, and are reinforced with structural members. Transverse cleats on the underside of the dockboard at each end prevent it from slipping. Low curbs, formed by the side members and designed to prevent equipment from running off the sides of the boards, are an added safety feature. The light weight of these boards is said to reduce materially the hazard of personal injuries being incurred while handling them. Since magnesium is non-sparking, the Magcoa dockboard is said to offer an additional safety factor where such materials as flour and oil are handled.



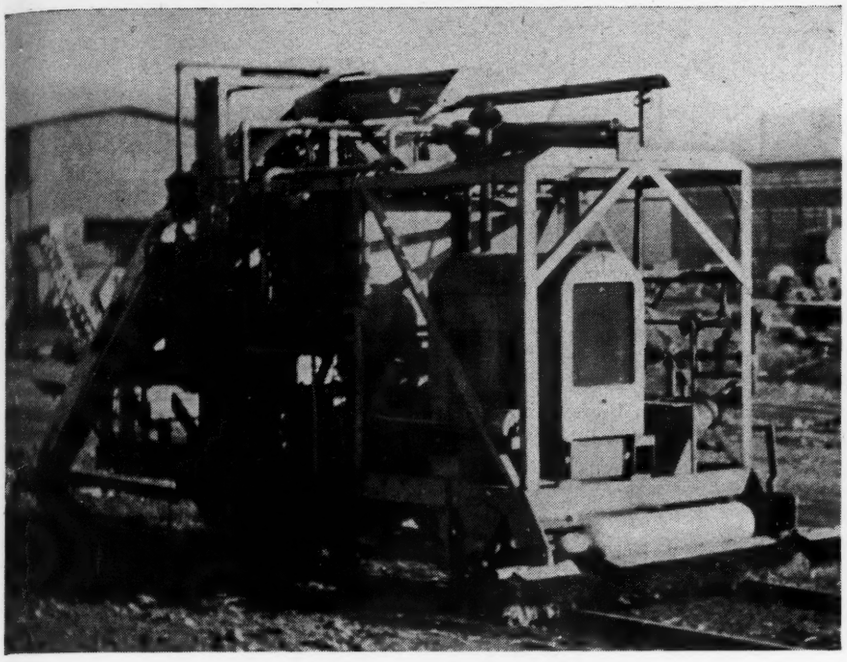
The Magcoa magnesium-alloy dockboard

38. *Unit for Crib Cleaning*

The Railway Maintenance Corporation, Pittsburgh, Pa., has announced the development of a machine for removing foul ballast from the space between ties, separating the dirt from the ballast, returning the clean stone to the crib, and disposing of the dirt. An experimental model of this machine was placed in service last year and the results of its operation are said to have been highly satisfactory.

The machine consists of an on-track, self-propelled carriage, equipped with lifting jacks and set-off wheels, weighing approximately 18,000 lb. A hydraulically-operated ram on each side of the machine is arranged so as to operate longitudinally in the cribs, moving from the ends of the ties toward the center of the track. By means of the rams the crib ballast is forced to the center of the track where it is picked up by an endless digging-type conveyor which delivers it to a screen for separating the dirt from the stone. After cleaning, the stone is returned to the track and the dirt is delivered onto a swing conveyor, which deposits it at the side of the right of way or into a following car, as desired. In operation, the

For further information about these products, use the post card on page 543.



The new crib-cleaning machine

machine is said to have a capacity for cleaning two cribs per minute.

The machine is powered by a 70-hp. gasoline or Diesel engine which drives the hydraulic pumps and, through mechanical means, the digging conveyor. The machine is propelled by means of a hydraulic motor and is said to be capable of speeds up to 15 m.p.h.

39. *Nordberg to Rent Ballast Cleaners*

The Nordberg Manufacturing Company, Milwaukee, Wis., has made preliminary announcement of a new ballast renovating service to the railways, which involves leasing to individual roads, on the scale desired, its various recently developed ballast digging and cleaning machines. Complete details of the plan will be announced later, but it is known to involve essentially three principal machines — the Cribex, for excavating foul ballast from the tie cribs; the Ballastex, which will dig the ballast from the inter-track space or shoulders; and a Screen Car, which, when it is not desired to waste the material directly from the Ballastex, will remove all dirt from the ballast and deposit the cleaned ballast back uniformly in the track—cribs, shoulders, and inter-track space.

Under the lease plan being set up, the Nordberg Company will build up a pool of the various units involved and will make them available to the roads in the numbers and types required to carry out the specific kind and quantity of work planned.

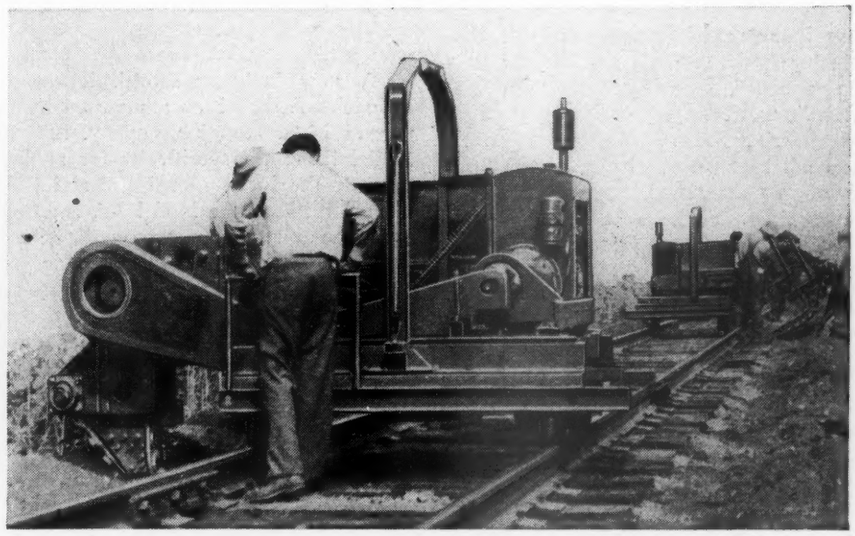
The company will maintain all of the equipment so leased, but the railroads will furnish all labor, including operators, for carrying out the actual field work.

Through this plan, the Nordberg Company expects to secure intensive use of its equipment, possibly in more than one shift a day in many cases, and thus enable the roads to catch up on their deferred ballast cleaning sooner than might be possible otherwise. The new plan does not affect the direct sale to the railroads of other Nordberg machines.

40. *Improved Sika Compound*

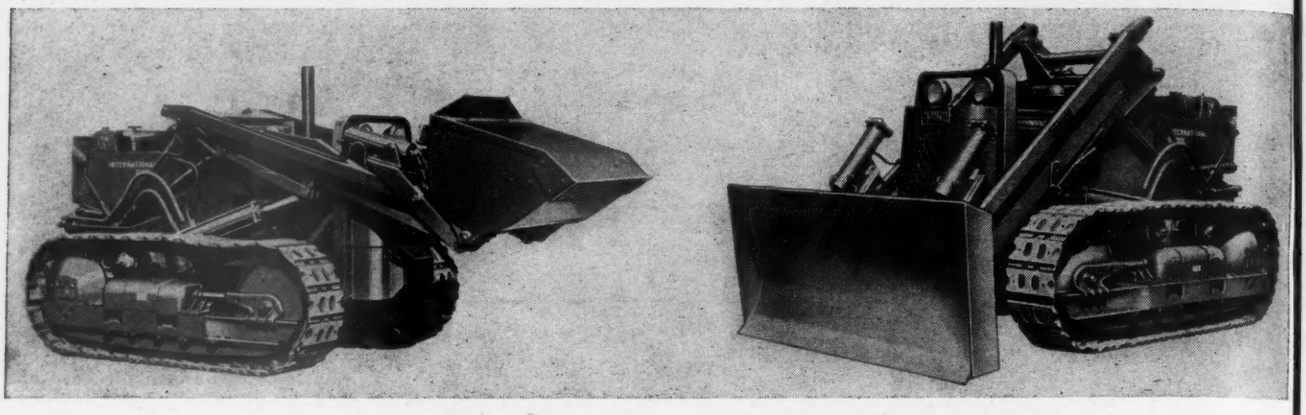
The Sika Chemical Corporation, Passaic, N. J., has announced that its product formerly known as Road Sika, which was used primarily as an anti-freeze for concrete, has been improved to permit its use in a variety of concreting and mortar work and has been renamed Sika No. 3A. This product is a heavy yellowish liquid, which, when diluted with water and mixed with mortar or concrete, is said to accelerate the setting time and to produce mortar or concrete of increased density and impermeability. It is also recommended by the manufacturer for use as a mortar topping or in concrete floor slabs to produce a dense and hard-wearing surface. During winter construction it may be used as an anti-freeze and at temperatures above freezing will continue to accelerate the hardening rate.

Another application claimed for this material is in mortar for masonry or glass-block construction. It is said that, when this material is used, tooling can be done within an hour after laying, even at low temperatures. Also, it is said that more courses of brick or glass block can be laid without danger of the mortar squeezing out from between the joints of the lower courses. Other uses for the material are in patching floors, or pointing concrete or masonry structures. When used in this work it is said to en-



A pair of Nordberg Cribex machines working in tandem. The machine in the foreground is shown with the digger boom fully under the rail, while the boom of the second machine, removing the ballast from the other side of the track, has only partly penetrated the crib

For further information about these products, use the post card on page 543.



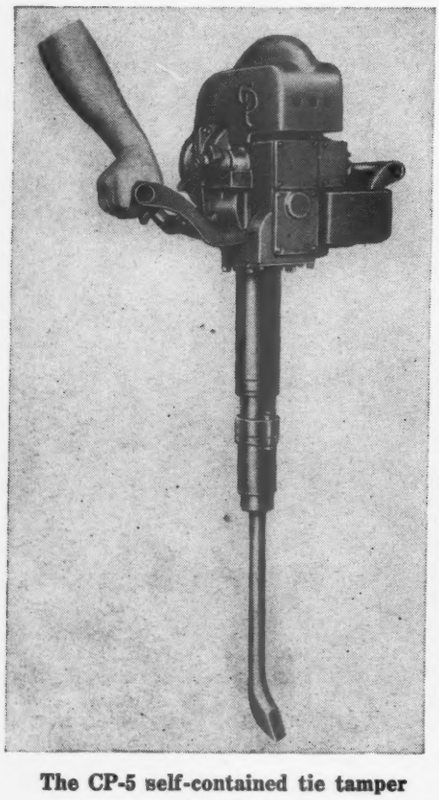
Two views of the Hough Model 9-A bulldozer-shovel, that at the left showing the unit equipped with the one-cubic-yard bucket, while that at the right shows the unit fitted with a bulldozer blade

hance the bonding properties of the new mortar, to allow earlier use to be made of patched concrete flooring, and to facilitate the rapid building-up of cement coats on vertical surfaces.

41. *Unit Tie Tamper*

The Chicago Pneumatic Tool Company, New York, is now producing a gasoline-engine-driven self-contained tie tamper, known as Model CP-5. The tamper is powered by a two-cycle, air-cooled engine that, indirectly, delivers 1,400 blows per minute at the tamping bar. It is equipped with a magneto-type ignition, has automatic lubrication, and is provided with two grip handles, one of which also serves as the starting crank.

The tamping bar is actuated by compressed air produced in the striking mechanism, which throws a striking piston against the tamping bar and also cushions the piston on its return stroke. This feature is said to protect the engine from impact and to prolong the service life of the machine, as well as to reduce vibration in the grip handles to a minimum. The weight of the tamper, complete with the bar, is 73 lb. The fuel tank has a capacity of 4½ pints, which is said to permit the unit to perform for four hours before refilling is necessary.



The CP-5 self-contained tie tamper

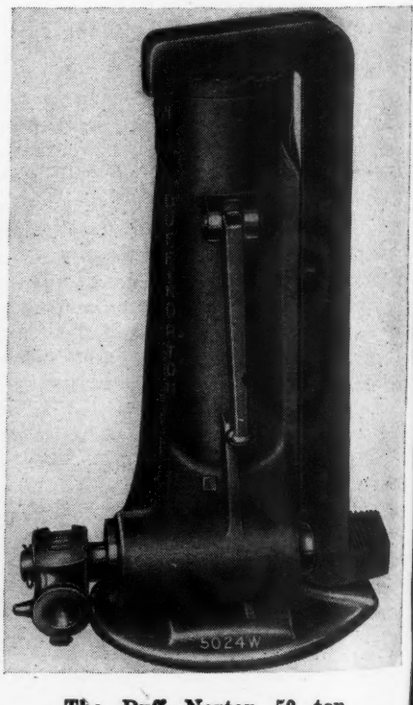
42. *Bulldozer Shovel*

A new bulldozer-shovel, known as Model 9-A, has been announced by the Franklin G. Hough Company, Libertyville, Ill. Built specifically for application to the International P-9 and PD-9 TracTracTors, the Model 9-A is a dual-purpose unit which may be equipped with either a full track-width one-cubic yard bucket or a bulldozer blade. Because this unit is specifically designed for these tractors, the original balance, stability and traction of the tractors are said to be maintained with either the bulldozer blade or the bucket in operation.

All movements of the bucket are controlled by hydraulic means eliminating practically all physical effort on the part of the operator. Spillage of the load is prevented by an automatic feature which tilts the bucket back into a carrying position. The design of the unit permits a long or high dumping reach to facilitate discharging the bucket load, while the design of the push arms is said to provide a powerful action in digging and a fast hoisting action. All overhead and side structures were eliminated in the design of Model 9-A to afford full 360-deg. visibility for the operator.

43. *50-Ton Screw Jack*

The Duff-Norton Manufacturing Company, Pittsburgh, Pa., has developed a new general-purpose screw jack, with a capacity of 50 tons, which, it is said, can



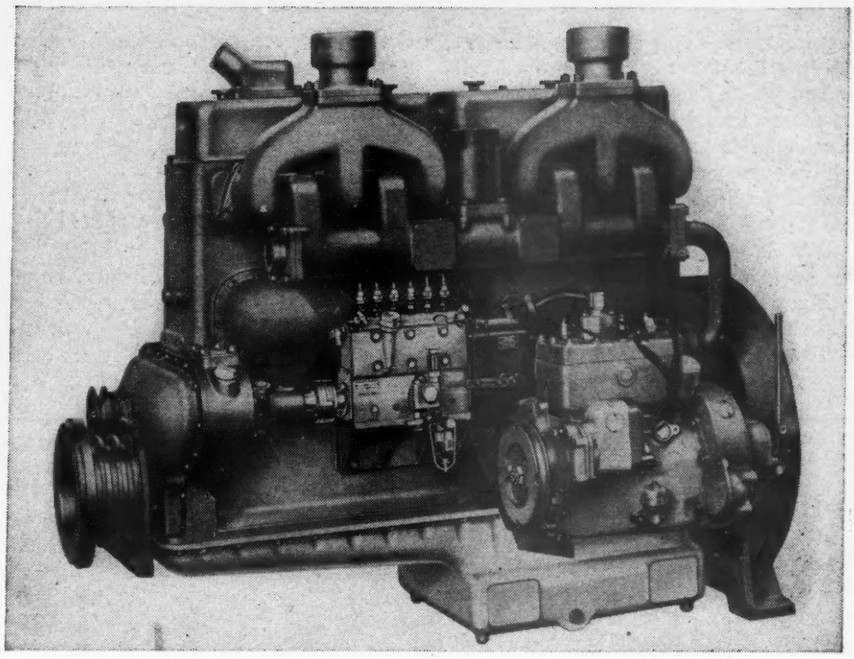
The Duff-Norton 50-ton general-purpose screw jack

For further information about these products, use the post card on page 543.

be operated at full speed by one man. This new jack, known as Model 5024-W, has a raise of 14⅜ in. It is currently being tested in heavy construction work, bridge and building operations, and in railroad shop service, and is said to be giving exceptionally efficient results in these applications.

One-man operation is obtained through the use of a high-ratio, alloy-steel worm and a special bronze worm gear. Another feature of the new jack is its inverted design, with the operating mechanism at the base, which incorporates a cast alloy-steel foot lift capable of lifting 25-ton loads from a low height of 3⅝ in. The base of the jack is of large diameter to provide a stable non-tipping foundation, and the housing is of rib-reinforced malleable iron.

44. *Waukesha Adds Four Engines*



Model 6-WAKD Waukesha six cylinder Diesel engine

The Waukesha Motor Company, Waukesha, Wis., has introduced a new line of Diesel engines for industrial use and for application to construction and other power equipment. The largest of the units is a six-cylinder engine (Model 6-WAKD), displacing 1197 cu. in. and intended for industrial use; another is a 248-cu. in. tractor and industrial six (Model 190-DLA); and a third is an automotive six-cylinder engine (Model 148-DK) of 779-cu. in. displacement. Soon to be developed are a smaller 134-cu. in., four (Model 180-DLA), and an industrial six displacing 201 cu. in. Other models will be introduced as needs develop.

These units are said to incorporate every war-tested and proved material and production technique that could be adopted in their manufacture. All are equipped with hardened crankshafts, have durable bearings, controlled water circulation, and new lubricating systems.

45. *Tournadozer*

R. G. LeTourneau, Inc., Peoria, Ill., has added the Model C Tournadozer, a high-speed pneumatic-tired unit similar to a tractor bulldozer to its line of earth-moving and construction equipment. The Tournadozer consists of a four-wheel tractor, powered by a 160-hp. Diesel engine, with a 44-in. by 11-ft. 3-in., cable-controlled blade, mounted at the front end. The tractor unit is capable of four speeds ranging up to 12 m. p. h. in each direction and is equipped with a Tournamatic constant-mesh transmission, which is said to enable the operator to select any gear ratio or to change from forward motion into reverse without shifting gears. The unit is steered by means of air-actuated disc clutches and brakes.

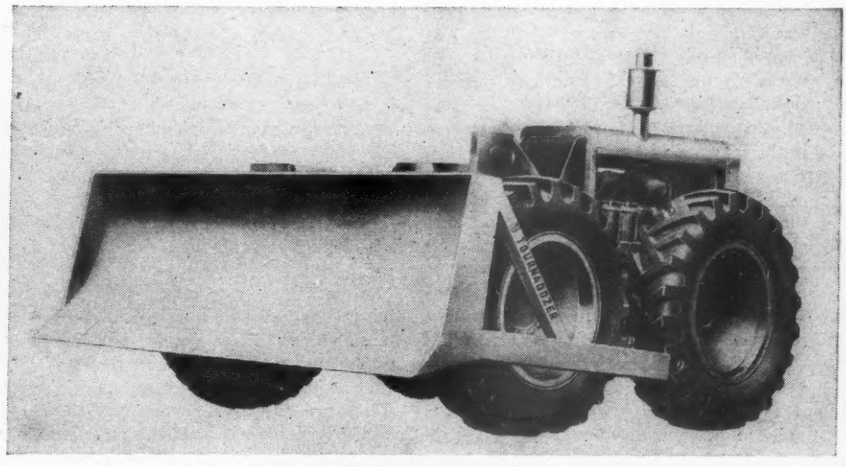
The Tournadozer is mounted on four 14 by 32 taper-bead tires and is said to be designed so that greater weight is put on the tires as the power requirements for digging or push-loading increase. The tires are designed for low pressures, a feature that is said to have advantages in cushioning the machine against shocks and vibrations and in reducing tire wear.

It is reported that the high-speed Tournadozer is suitable for use in a variety of earth-moving work and that it is at its greatest advantage on work that requires much backing and maneuvering. Its ability to operate over paved areas without damage, because of its rubber mounting, is said to broaden its job mobility and usefulness.

Specifications for the Model C Tournadozer include a 5-ft. 11⅝-in. wheel base, an overall length of 15 ft. 2 in., a height of 7 ft. 11 in., and a shipping weight of approximately 14½ tons.

46. *Simplex Track Jacks*

A new line of Simplex track jacks, designated as Type A and embodying four major improvements over earlier Simplex Jacks, has recently been introduced by Templeton, Kenly & Co., Chi-



The Model C Tournadozer

For further information about these products, use the post card on page 543.

cago. Of the single-acting or trip type, the new line features an improved ball-and-socket design which is said to reduce maintenance of the jacks by 81 per cent; a shorter fulcrum center which is reported to result in 31 per cent easier lifting; a safety thumb guard for greater protection for the operator; and a larger striking surface to increase the service life of the jack.

Many features are retained from the earlier models of Simplex jacks.

The new jacks are available with a choice of three sockets, which include a square socket for use with lining bars, and oval or round sockets for use with lever poles.

47. *Switch Heaters*

A new pot-type switch heater, known as the Wye-Gee switch heater, has been developed by Young & Greenawalt Co., East Chicago, Ind., the new heater being said to be capable of burning for 10 hours at full heat without attention. The Wye-Gee is 9¼ in. wide and 33 in. long and is only 4½ in. deep. Because of its shallow depth, it is said that the heater may be installed with a minimum of excavation.

These heaters are fabricated of No. 8-gage steel plate, are of all-welded construction, and are said to be able to resist blows of picks or bars. A large burner is provided to assure an adequate flame for melting snow.

The Railroads and Robert R. Young Are Peglerized

Westbrook Pegler, newspaper columnist, took out after the railroads for recent accidents in one of his syndicated essays last week, devoting special attention also to Robert R. Young, C. & O. chairman. By special arrangement with King Features Syndicate, Inc., the following quotation (in part) is made from Mr. Pegler's piece:

"A man named Robert R. Young, an ex-broker, we are told, is presented to the public these days as a serio-mischievous genius of the railroad business, who challenges the monstrous Morgan interests for control of the New York Central. He lives alternately in a 40-room house in Newport, R. I., and a tasty confection called 'The Towers' in Palm Beach, and is fighting to put America comfortably on wheels. As prospective customers who are being importuned to accept this person as a phenomenon, and then, as an institution, we may keep the door on the chain-lock and analyze the sales talk.

"The first—indeed, the sole—interest of most citizens in railroading is safety.

"Whatever the statisticians of the industry may say about casualties per million passenger-miles to allay our anxieties, the fact remains that the accident rate is so frightening that the passenger nowadays consciously asks himself not whether he will get there on time but whether he will get there alive.

"Dramatic wrecks are reported and pictured in the papers when they happen, but seldom is there a follow-up story, when the Interstate Commerce Commission has finished its deliberate investigations and reports, renewing interests in this havoc and explaining what caused the smashups.

"Many of them have been caused by the inattention of old men running past signals, by violation of speed limits on curves, by bad tracks and wornout equipment. There is a strong controversy between the advocates of light cars and those who still stand by the old, heavy construction. The layman, thinking of his own neck, may be pardoned for preferring the heavy cars and waiving such eye-catching novelties as colorful prettification and pear-shaped external effects, night clubs and wireless telephones and movies en route. The provisional dreamy promise of transparent domes, similar to the tower of the freight caboose, offers its own objections. If a car rolls over, as the automobile makers have shown, steel holds together, although even to come through a wreck without serious outward damage is a pleasure that most of us would gladly trade for the greater negative satisfaction of an uneventful journey. . . .

"If Mr. Young does say 'dambanker' that may be an affectation of a special type of Texan who is not at all distinguished on his own home grounds but knows how to attract attention for his vanity when he goes East. In any case, it is no recommendation to the person who travels the railroads and is shopping for reasonable speed and the utmost safety. A broken rail or a drowsy old geezer on the head end, who should have been retired years ago, can still smash up a de luxe train even though the financier who has taken over the road by some cleverness in a board room says 'dambanker' all day long.

"Mr. Young's propaganda says he is almost equally contemptuous of railroad operating men. Still no sale: After all, railroad operating men spend their lives running the trains and, though not all of them may be as good as the best of them, still theirs is a specialized occupation, full of mysteries, knowledge and skill.

"And anyone who would put his trust in a broker, even a prankish, expatriate Texan who says 'dambanker,' in preference to a professional railroad man has only himself to blame if some night he finds himself boxed in a steel cell upside down with 24 hours to wait until the wreckers can cut him out with their torches.

"Operating men have lived years in motion actually on the railroads. Their eyes and ears can detect dangers that a broker couldn't well understand if they were pointed out and explained. They are experts.

"Mr. Young is said to have forced the reactionary professional railroad men to accede to his demand for through cars on the transcontinental runs. That is only a technical victory, if any. To most passengers it is still an illusion. The through cars are few, one to a train usually, and on some lines they run only on alternate days. This means that it is only a nominal service and that even though applications are made weeks in advance for space on the through cars, few passengers get space.

"On the other hand the problems of the traffic and operations men for whom Mr. Young has such contempt are almost insuperable, as examination of their side of the story will show. It is dramatic to say that a hog can ride from coast to coast without getting off or changing cars, but it is neither literally true nor a fair comparison of problems.

"There are other gaps in Mr. Young's qualifications as presented thus far in publicity that is strongly sympathetic but, it seems to me, naive. Mr. Young spends long vacations and weekends in soltitude away from it all, and has 'discovered that he can think a jump ahead of those business-men who befog themselves with gregariousness.'

"The men I know who run railroads, and I do know many of them well, befog themselves neither with gregariousness nor anything else, but are on the job always and sleep with an ear attuned to a bedside telephone for the terrible and increasing alarms from out in the country where men, equipment and tracks, weakened to dilapidation by a magnificent performance in the war, are spinning into dreadful tangles.

"I don't look to a broker to cure that from his soltitude at Newport or Palm Beach by saying 'dambanker.' If there is anything more convincing in the spiel I should be pleased to listen, but my sales resistance is still strong against the qualifications advanced in Mr. Young's behalf to date.

"I don't want my railroad men picturesque or necessarily luxurious but prefer them plain, sensible, unaffected and efficient from long service in railroading, not stock trading."

Suggests I. C. C. Rolls Dice to Decide Reorganization Cases

THE U. S. Circuit Court of Appeals, Second Circuit, on January 13 handed down an opinion in the reorganization of the New York, New Haven & Hartford in which it sustained treatment accorded to security-owners of a subsidiary, the Old Colony, by the Interstate Commerce Commission and approved by the district court. The circuit court's action took the form of denial of an appeal from the aggrieved security-owners for more liberal treatment than that prescribed by the I. C. C. with the district court's acquiescence.

One of the three circuit judges, Jerome Frank, dissented in part from the views of the majority, and, in doing so, dealt with some fundamental problems of conduct by administrative agencies—somewhat after the manner of the "dodecalogue" on this subject of the late Commissioner Joseph B. Eastman.* Judge Frank pointed out that the Interstate Commerce Commission, in its first reorganization plan for the New Haven, had allotted $16,488,000 of securities in the reorganized company to Old Colony claimants. In a subsequently modified plan it reduced this allocation to $7,697,033 in new securities, giving effect to a "compromise" among various New Haven security-holders.

The circuit court reversed the district court approval of the plan giving effect to this compromise allocation, on the ground that, in a matter of valuation of a property, the commission was required to exercise its independent judgment. So the case went back to the I. C. C. and that body came up again with its allocation of $7,697,033 of new securities to Old Colony claimants—the figure this time being explained as having been reached by the exercise of independent judgment. Judge Frank says he would like to have more evidence on this point—"such a striking coincidence certainly demands a rational explanation." Continuing, Judge Frank said in part:

"The situation here is like that which sometimes occurs with respect to a jury trial: A general verdict, once it has been entered and the jury discharged, cannot usually be impeached by evidence that it was reached by throwing dice. However, if, before a general verdict is entered and the jury discharged, the jurors inform the judge that they employed gambling techniques, obviously the verdict must be held a nullity. Similarly, if a trial judge who tried a jury-less case—although he made special finding of fact which ordinarily, because supported by substantial evidence, would sustain his decision—were to reveal of record that his actual decisional process was that of Judge Bridlegoose [the Rabelaisian magistrate who decided cases by throwing dice], no appellate court would hesitate to reverse his judgment. Substantially that condition exists here. . . ."

"My reaction here must not be taken as an expression of any general hostility to administrative agencies (nor to the I. C. C. in particular). On the contrary, I have elsewhere stated, in some detail, my objections to blanket denunciations of those agencies as engaged in 'administrative absolutism'. Such bodies are often, I think, demonstrably indispensable parts of a democratic government in a complicated economy; unduly to hamper their activities by over-meticulous judicial review would destroy their needed usefulness and swamp the courts.

Perfection Unattainable

"Whatever is done, the work of these agencies will never be perfect, no more than that of courts will be, for perfection in matters human is unattainable. Especially is that true when the undertaking relates to 'valuation,' an exquisitely ambiguous term to describe a prediction, an inherently fallible human guess, which of course cannot be reduced to 'mathematical certitude' since it does not result from 'mere . . . mathematical computation.' No doubt such a guess about the worth of the assets of a great railroad corporation can frequently best be made by men, like the I. C. C. commissioners, who specialize in that function. Such 'specialists, assisted by experts,' are better equipped than most judges to engage in such guessing. For these administrative prophecies, when properly made, become 'educated guesses.' They are unavoidably, in the last analysis, 'intuitive' as, too, are many decisions by judges. But these educated guesses should stem from careful reflection on the evidence. . . ."

"If, however, the commission is sustained in this case, and, accordingly, behaves similarly in future cases, then its conduct will indeed be a mystery. Its so-called 'valuations' will then be acceptable, no matter how contrived. In that event, it would be desirable to abandon the word 'valuation'—since that word misleadingly connotes some moderately rational judgment—and to substitute some neutral term, devoid of misleading associations, such as 'aluation,' or perhaps better still, 'woosh-woosh.'

"The pertinent doctrine would then be this: 'When the I. C. C. has ceremoniously woosh-wooshed, judicial scrutiny is barred.' It would then be desirable to dispense, too, with the commission's present ritualistic formula, 'Taking into consideration, etc.,' replacing it with patently meaningless words—perhaps the same words spelled backward, (i. e., 'Gnikat otni noitaredisnoc, etc.'). Then no one would be foolish enough to believe that the figures in a commission plan necessarily have anything to do with deliberation, but everyone would know that the figures might well have been the product of omphalic inspiration, or ornithomancy, or haruspication, or alcatory devices, and that the conclusions of the I. C. C. might well be but the conjurations of mystagogues. . . ."

"Doubtless some trial judges, or administrative officers acting judicially, pretend to be doing their duty without in fact doing so, and they may be sufficiently astute so that their derelictions cannot be perceived by a reviewing court. Their hidden misconduct may then be irremediable. But when they attempt such a pretense without effectively concealing the misconduct, a reviewing court should reverse them. That, I think, is the case here.

"To condone the commission's conduct here is to give aid and comfort to the enemies of the administrative process, by sanctioning administrative irresponsibility; the friends of that process should be the first to denounce its abuses. If the courts declare themselves powerless to remedy those abuses, judicial review will become a sham. . . ."

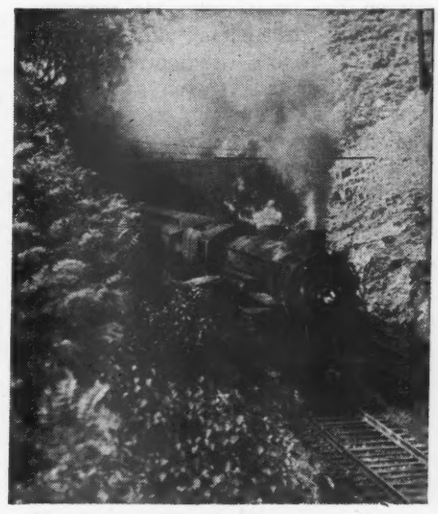


Photo courtesy of W. A. Lucas

South portal of Haverstraw tunnel on the New York Central

* See *Railway Age*, March 25, 1944, page 602.

Trends in Railway Passenger Car Design

(*Continued from page 532*)

The power car is arranged with a passageway so that passengers can wander from one end of the train to the other.

Electronics will also enter into this picture of things to come. The use of electronics for cooking or defrosting and heating frozen foods offers unusual possibilities for railroad dining-car improvements. The weight of an electronic kitchen is estimated at less than 50 per cent of the standard kitchen and reduction in size will increase seating capacity approximately 50 per cent. The heat generated by standard stoves will be eliminated, thus making for improved sanitation in food service. The electronic kitchen permits the serving of many more meals so that trains formerly carrying two diners can serve better and more sanitary food in one car, thus increasing passenger revenue of the train.

I have some predictions for the long neglected commuter. The railroads realize that commuter traffic must be improved and to this end various new ideas have been considered. We propose constructing a streamline suburban coach with interior features such as fluorescent lighting, and in which electrically animated and sterilized air for cooling as well as heating is provided for passenger comfort.

The tendency toward hauling more passengers in individual sleeping rooms has prompted the conception of the "Railotel" car. This proposal provides space for 30 single-occupancy rooms with an upper and lower deck. The problem in such a car, which will demand refrigerated ice water in every room, ample ventilation, cooling and heating, is the power supply. Axle-driven generators are hardly capable of supplying the necessary power and an independent power generating unit must be placed in the car. However, as mentioned before, there is a trend toward head-end power which would make this car practical to build and operate.

The modern train is swift and prompt. The passengers may sit in comfort, read at leisure, watch the scenery or stroll through the cars. Meals are served in private rooms, or in the dining car as desired, and when the traveler retires, a soft, comfortable bed awaits for a restful sleep. Millions of people have learned these advantages, as witnessed by the vast increase in train travel in the last ten years. Many more millions will experience them as the many new trains, embodying still more advanced ideas, which the car builders and rail roads are now planning, are put into service.

G. P. McNear Dies from Gun-Shots

(*Continued from page 535*)

receiver have failed. Regular operation on the Eastern division, East Peoria, Ill., to Effner, Ind., was restored by its corporate management on June 2, 1946, although no agreement on the issues of the strike had been reached between the unions and the management. The latest act of violence prior to Mr. McNear's death was the allegedly deliberate derailment of a freight train near El Paso, Ill., on November 26, 1946.

The death of Mr. McNear was brought to the attention of the House of Representatives on March 11 by Representative Hartley, Republican of New Jersey, and chairman of the House committee on education and labor. As noted in *Railway Age* of February 22, page 426, Mr. McNear testified before that committee on February 18 with respect to the strike on the T. P. & W.

"After he testified, he indicated to me personally that he felt he might be threatened and that attempts might be made to intimidate him," Representative Hartley said. "Later, representatives of the unions involved in that strike also testified before this committee. They charged Mr. McNear . . . with lack of any knowledge of railroading and, at least by intimation and interference, impugned his patriotism. To these charges, Mr. McNear did not see fit to reply."

At this point, the committee chairman observed that Mr. McNear worked on track gangs on the New York Central in 1916 and 1917 "in order to fit himself" for an important post in organizing the French railroads in World War I. He further noted that Mr. McNear's only son died in action while serving with the Navy in World War II, following his rejection of orders to return to the United States when his late father, according to the committee chairman, advised him not to "desert the boat in the middle of the stream."

"Will this Congress desert the boat in the middle of the stream, or regardless of how strong the personal dangers involved, see the boat through to the far shore of industrial peace in this country?" Representative Hartley asked.

"I believe we have a duty to do more than legislate," he remarked. "As chairman of the . . . committee, I am asking the attorney general of the United States to authorize the Federal Bureau of Investigation to go into the McNear slaying immediately and with all the facilities that great agency has at its disposal. In my opinion, there is a direct connection between the slaying of Mr. McNear and his testimony before our committee." At the same time, the committee chairman reported that he received a letter from Mr. McNear on March 10 to the effect that the latter would be "glad to return to Washington for further questioning . . . if the committee should so desire."

The Department of Justice, meanwhile announced that it was conducting an "active study" of the McNear slaying and indicated that it may enter the case on the basis that Mr. McNear had been a congressional witness on legislative matters.

NEW BOOK . . .

Transport Facilities, Services and Policies, by Emory R. Johnson. 409 pages. 6 in. by 9 in. Bound in cloth. Published by D. Appleton-Century Company, 35 West 32nd street, New York. Price, $3.50

The purpose of this book, as set forth in the preface thereto, "is to present in a volume of moderate size an account of the facilities used and the services rendered by the several transportation agencies." Designed as a textbook for college and university courses, it is of moderate size and detail compared with the author's previous current textbooks. Principles of Transportation and Transportation: Economic Principles and Practices.

Five modes of transportation are treated: Railroad, pipeline, highway, inland waterways and ocean transportation, and air transportation. Each is described simply—and the peculiar problems, rate structures and character of government promotion and regulation are set forth in parallel for each form of carriage.

Dr. Johnson has resisted any impulse he may have had to load his text with the detail of fact and commentary which his store of knowledge could easily provide. Instead, he has produced a volume which reads well and easily—without sacrifice of necessary information.

Dr. Johnson is by no means timid about setting his readers right on what is wrong with government policies. He writes, on page 60, for example: "The future long-run successful financing of the railroads, and the continuance of private ownership and operation of railroads in the United States, depend in no small measure upon the policy followed in providing government aid to other modes of transportation. . . ."

His simple exposition of the contrast between railroad rights of way and those of other forms of carrier, on page 24, is a masterpiece of clarity. His final short chapter, entitled "Some Transportation Problems and Policies" should be made required reading for state and federal legislators and regulators.

GENERAL NEWS

Florida East Coast Completes New Line

Cut-off connecting Okeechobee branch to main line to speed perishables

Some 15,000 people turned out to celebrate the opening of the new railway just completed by the Florida East Coast as a cut-off between its Okeechobee line and the main line at Fort Pierce, Fla. Nearly a thousand people of the Everglades area rode a special train over the new line to attend the inaugural ceremonies at Fort Pierce.

The new cut-off is 29.3 miles long and will reduce the distance from the fertile Glades section to the main line by 120 miles, enabling the road to supply 24-hr. faster service for the vegetable and other shippers in that area. In the 1945-46 growing season this area produced 12,314 cars of vegetables, which had to be hauled over the old branch line to the main line at New Smyrna Beach, Fla.

In addition to the vegetables, the Lake Okeechobee area produced 32,790 carloads of sugar cane for movement from the fields to the refinery, and 1,802 carloads of raw sugar and molasses for outbound shipment.

At the opening ceremonies Scott M. Loftin, trustee of the Florida East Coast, was the principal speaker. He said that the new line is the longest built in this country since the war and will serve as a link between two of the fastest-growing areas in Florida. "New rail construction has become a comparatively rare thing in most parts of the United States," he emphasized, "but here in Florida, we are still building. Many sections of our state are still growing and progressing to an extent as to warrant additional railway construction. This particular line brings the products of the Glades area much nearer to the markets of the country. It also opens up thousands of acres of virgin land in St. Lucie and Martin counties which are well adapted to agricultural pursuits."

Clearing and grading for the new line was started in October, 1945, but its completion has been delayed by shortages of materials. It is laid with new 90-lb. rail and the grades are very light. There are only a few short curves and 25 continuous miles of the line are tangent. A total of 1,356 feet of trestles were required to cross the various drainage canals, creeks and ponds.

Embankments were built to carry the tracks over swamps and other depressions and required 604,353 cubic yards of material, obtained from borrow pits alongside the new line.

Union Heads Preparing New Rules and Wage Demands

Reporting on recent Washington, D. C., meetings of railroad labor leaders, the March 8 issue of "Labor" stated that the operating brotherhoods "have decided to concentrate for the present on renewing the program for extensive changes in working rules, originally put forward last year," while the non-operating unions "are laying the groundwork for another movement." The latter would seem to be more of a wage than rules movement since the article goes on to quote G. E. Leighty, president of the Order of Railroad Telegraphers, as having said that the non-op leaders found, at a special meeting last week, that "the rising cost of living has already wiped out the 18½ cents per hour wage increase secured by the unions last year."

With respect to the ops, the report reveals that all five brotherhoods will join in the same rules movement. This was not the situation last year when the Brotherhood of Railroad Trainmen, headed by A. F. Whitney, and the Brotherhood of Locomotive Engineers, headed by Alvanley Johnston, followed the independent course which culminated in the nationwide strike by those organizations.

The "Labor" report said further that the non-op leaders "found also that the take-home pay of the employees has been further reduced by the reduction in number of hours worked; that no consideration has been given by the industry to any improvement in the living standards of these employees during the past 10 years; and that the rates of pay of railroad workers are much lower than rates in other comparable industries." Preparation of the non-ops' "definite program" was expected to be completed within 30 days.

Pullman Cuts Work Accidents

The Pullman Company had 17 per cent fewer "lost-time" accidents in 1946 than during 1945, Fred R. Callahan, director of safety, reported last week. In 93,352,161 man-hours of work during 1946, the accident frequency rate declined to 2.06, as compared with 2.47 in 1945 and 3.16 in 1944. The Atlanta (Ga.) and Chicago zones showed the greatest accident decreases, and its shop at St. Louis, Mo., led the six so-called large shops in safety.

Express Agency Seeks Further Rate Increase

Says additional revenue is required to provide adequate compensation to railroads

Asserting that income from current rates will fall short "to the extent of not less than $70,000,000" of providing adequate compensation for the 1947 services to be performed by the railroads in transporting express traffic, the Railway Express Agency has applied to the Interstate Commerce Commission for authority to make additional increases in its charges. The application took the form of a petition filed March 11 in the Ex Parte 163 proceeding wherein increases calculated to produce $58,900,000 in additional annual revenue were recently approved by the commission for a period of one year from December 13, 1946.

Agency Absorbed 1946 Rise—The present petition recalls that the application out of which the December advance came was based on increases in R.E.A. costs, and that it stated that further proposals would be forthcoming to provide the additional revenue required adequately to compensate the railroads. It adds that "since *Express Rates, 1922,* there have been no adjustments in express rates and charges specifically to cover increases in the costs of the railroads incurred in handling petitioner's express traffic."

As the petition summarizes it, R.E.A. is proposing "two new scales of first-class express rates per 100 lb., one for application in and between express rate zones 1 and 2, designated Eastern-Southern scale, and the other for application within rate zone 3 and between points in that zone and points in zones 1 and 2, designated Western scale." The proposed second-class rates would be 75 per cent of the first class rates, and a new scale of graduated charges on packages is sought, each such charge containing the fixed factor of 75 cents.

Tables comparing the present and proposed rates are included in the petition's appendices. The intrazone rate for the 12½-mile No. 1 sub-block in zone 1 would be increased from $1.19 cents per 100 lb. to $1.65 cents. Rates for each subsequent block would be similarly increased, the rate at 1,750 miles rising from $7.08 per 100 lb. to $8.55. Similar increases would be applied in zones 2 and 3. The zone 3 increases, for example, would begin by raising the 12½-mile rate from $1.14 to $1.75 and proceed to the 2,850-mile rate where the increase would be from $13.43 to $13.50.

Examples of present and proposed first-class rates from New York are given, re-

spectively, as follows: To Atlanta, Ga., $4.66 and $5.35; Boston, Mass., $2.24 and $3.05; Chicago, $4.38 and $5.35; Denver, Colo., $8.73 and $10.25; San Francisco, Calif., $13.70 and $14.40. The proposed new first-class package charges show that the 1-lb. rate from New York to Atlanta or Chicago would be increased from 65 cents to 80 cents; to Boston, from 65 to 77 cents; to Denver, from 65 to 85 cents; to San Francisco, from 70 to 89 cents.

Traffic Test Under Way—Most of the petition's supporting argument is a summary account of increased costs incurred by the railroads. As noted in the *Railway Age* of November 2, 1946, page 738, the commission authorized R.E.A. to make the December 13 increases with some misgivings as to the prospects for realizing the estimated revenue yield; and it called for traffic studies which would indicate the result and lay the basis for a permanent adjustment. "The traffic test required," the present petition states, "is now under way and the results will be presented to the commission within the [specified] six months' period which expires June 13."

Meanwhile, the commission's Bureau of Transport Economics and Statistics included in the latest issue of its "Monthly Comment" a discussion of R.E.A. financial results for last year. It pointed out that the Express Agency pays for the transportation it receives by turning over its net receipts to the carriers handling its traffic "on the basis of a standard agreement and other contracts." These payments to carriers amounted to $106,814,382 for 1946 as compared with $157,074,918 in 1945, a decrease of 32 per cent, the bureau reported. It added that Class I railroads reported 1946 express revenues of $92,700,000, a decrease of 35.6 per cent below the 1945 figure of $144,000,000.

P. R. R. Continues Supplemental Pension Program

Although the Railroad Retirement Act established a policy of joint contributions for pensions, half by the employee and half by the railroad, in place of individual company pension arrangements, the Pennsylvania has continued in effect a supplemental pension plan applying on earnings above $300 a month (the maximum rate of pay taxed under the federal program), President Martin W. Clement has pointed out in a recent statement to stockholders. In 1946 a total of 16,288 employees were covered by the supplemental plan, payments thereunder being made equally by the company and the employee.

Officers of the railroad are not permitted to contribute on, or receive supplemental pensions based on, any portion of their salaries in excess of prescribed amounts, the maximum possible being $8,333.33 per month. Directors of the company who are not officers do not participate in the plan, as the Pennsylvania's directors serve without remuneration. The amount of benefits payable to any employee under the plan—which are in addition to amounts up to $120 per month payable under the federal program—vary with the employee's age on retirement, his total service, and his average salary during the 10 years preceding retirement. For an average annual salary of $5,000 the pension would vary from $280 per year with 20 years' service up to $560 per year with 40 years' service.

Freight Car Loadings

Loadings of revenue freight for the week ended March 8 totaled 805,789 cars, the Association of American Railroads announced on March 13. This was a decrease of 44,242 cars, or 5.2 per cent, below the previous week, an increase of 19,600 cars, or 2.5 per cent, above the corresponding week last year, and an increase of 38,734 cars, or 5.0 per cent, above the comparable 1945 week.

Loadings of revenue freight for the week ended March 1 totaled 850,031 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, March 1			
District	1947	1946	1945
Eastern	165,554	149,267	158,858
Allegheny	176,007	159,592	172,949
Pocahontas	60,627	57,470	52,091
Southern	139,001	135,917	127,838
Northwestern	97,324	89,645	81,551
Central Western	139,505	125,148	122,848
Southwestern	72,003	65,358	69,601
Total Western Districts	308,832	280,151	274,000
Total All Roads	850,031	782,397	785,736
Commodities:			
Grain and grain products	56,913	54,912	41,281
Livestock	13,266	16,674	13,983
Coal	185,068	185,276	162,696
Coke	14,484	12,948	15,315
Forest products	52,858	42,588	41,053
Ore	12,913	9,457	14,393
Merchandise l.c.l.	123,993	121,642	107,320
Miscellaneous	390,536	338,900	389,695
March 1	850,031	782,397	785,736
February 22	776,689	723,281	772,396
February 15	799,977	707,054	784,703
February 8	767,481	713,240	755,832
February 1	835,051	723,301	739,556
Cumulative total, 9 weeks	7,197,626	6,533,136	6,841,878

In Canada.—Car loadings for the week ended March 1 totaled 69,962 cars, as compared to 68,503 cars for the previous week and 66,083 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

Totals for Canada:	Revenue Cars Loaded	Total Cars Rec'd from Connections
March 1, 1947	69,962	37,467
March 2, 1947	66,083	35,427
Cumulative totals for Canada:		
March 1, 1947	603,647	323,545
March 2, 1947	582,714	307,073

Find Air Freight Business for I. C. Impractical

An air transportation survey has revealed factors unfavorable toward the Illinois Central's entrance into the air freight business, and as a result, the I. C. will effect closer coordination with existing air transportation, that railroad has announced. The study, undertaken by an aviation consulting firm on behalf of the road, included an investigation of less-than-carload merchandise freight traffic and "head end" traffic, such as mail, newspapers, express, milk and baggage.

The survey revealed the following: the I. C. immediate territory is too compact for the factor of air speed to enter largely; the air traffic volume potential is small; competition of existing carriers is well established; the profit possibilities of a new line are limited; and the probable future traffic loss will not be excessive.

Applications to engage in "air forwarder" operations by an existing subsidiary of the road, the Mississippi Valley Transportation Company, are now pending. They would include assembling suitable air cargo freight for movement both within and beyond immediate I. C. territory by existing or future air carriers and the disassembling and distribution of similar cargoes received by air.

Seatrain Service Resumed

Seatrain coastwise service, whereby up to 100 freight cars per ship are transported between New York and New Orleans, La., and New York and Texas City, Tex., was resumed by Seatrain Lines March 12 after a five-year lapse due to the war, when vessels departed from the newly completed terminal at Edgewater, N. J., bound for New Orleans, and from New Orleans for New York. Thereafter, according to Graham M. Brush, president of Seatrain, ships will leave New York every Wednesday, arriving in New Orleans the following Tuesday, and every Friday to arrive at Texas City the next Thursday.

New England Shippers to Meet on Box Car Shortage

"Governmental 'efficiency' which now orders 13,000 empty box cars out of New England each month, while New England factories close and curtail and New England workers are thrown out of work, should be fully discussed and the results of such discussion immediately made known to our senators and representatives in Washington," said William H. Day, chairman of the New England Shippers Advisory Board, in issuing a call for all New England shippers and receivers to meet at the Copley Plaza hotel, Boston, Mass., on March 20 to discuss what he termed "a situation now far more serious than it was even during the height of the war."

Mr. Day declared "what is needed is not more laws but more box cars. The importance of solving this problem cannot be overestimated," he continued. "Its effect on our domestic economy and especially on our New England manufacturers and their employees is already disastrous and becoming increasingly so.

"Prompt consideration should be given as to whether the public interest would be better served if such Interstate Commerce Commission service orders as now require New England's railroads to send 455 empty freight cars out of New England every day—to move hundreds of miles without loads—should immediately be modified so that available loads from New England shippers will be placed in those cars and move, when destined to points in the West.

"The time consumed in loading and unloading would slightly lengthen the time now required to move empty box cars from points where unloaded here to those

Mr. Young's Youthful Lieutenants

William C. MacMillan, Jr., John H. Payne, Jr., and Charles R. Hook, Jr., have been selected to serve as president, executive vice-president, and vice-president, respectively, of the Federation for Railway Progress. (See *Railway Age,* March 1, page 445, for an outline of the new organization's program.)

Fabian Bachrach
William C. MacMillan, Jr.

Blackstone Studios
John H. Payne, Jr.

Charles R. Hook, Jr.

Mr. MacMillan, 33 years old, is the eldest of the three officers. Since January 15, 1946, he has been assistant to R. R. Young, Chesapeake & Ohio Lines chairman, who is also the federation chairman, on Mr. Young's New York staff. Since last October 15, when the C. & O. lines served notice of their withdrawal from the Association of American Railroads, Mr. MacMillan has been developing the organization of the federation.

A graduate of Williams college and Albany Law school, Mr. MacMillan was a partner in the Troy (N.Y.) law firm of MacMillan & Filley from November 1, 1939, until he entered the army as a private in April, 1942. Commissioned in 1942, he received his majority in 1945 and was appointed chief of personnel statistics branch, Headquarters, A.A.F. Upon his discharge in December, 1945, he was awarded the Legion of Merit by General H. H. Arnold. As federation president Mr. MacMillan will continue to make his headquarters in New York.

Mr. Payne, 31 years old, was graduated from Colgate university in 1938. From July, 1939, until January, 1941, he was assistant secretary of the New York State Bankers Association, resigning to serve as the first full-time secretary and treasurer of the Virginia Bankers Association. During 1941, he served as deputy administrator of the Defense Savings Staff, United States Treasury department. Commissioned an ensign, U.S.N.R., in May, 1942, he served in the Solomon's campaign of 1943. In September, 1945, was released to inactive duty as a lieutenant. Since that time he has been executive manager of the American Bankers Association, resigning from that post to accept his new duties with the federation. Mr. Payne has headquarters in Cleveland, Ohio.

Mr. Hook, who is 32 years old and a graduate of Yale university, is assistant to the president of the Chesapeake & Ohio Lines, in charge of developing a personnel program. He will continue to maintain headquarters in Cleveland. He left the Rustless Iron & Steel Corp. in July, 1946, where he was assistant to the general manager, to enter railroad personnel work. During the war Mr. Hook was Maryland representative for the Training Within Industry Program of the War Manpower Commission, as well as an industry member on the United States Mission of Labor Experts, spending several months in Bolivia studying the strike situation in the tin mines there. Currently a member of the advisory council formed by the War Department General Staff to advise on the revision of Army personnel administration, he is a director of the American Arbitration Association and a member of the Planning Council Personnel Division of the American Management Association.

Mr. Hook is co-author with Lee H. Hill of "Management at the Bargaining Table," a study of industry's approach to labor problems, published in 1944.

---

sections of the West where they are now being ordered sent empty, but such a change in governmental edict would permit the forwarding of pay loads of badly needed manufactured goods in cars now required to move empty. . . . It would transfer an inefficient into an efficient operation. Freight cars in New England are becoming scarcer and scarcer not even the masterminds of car distribution in Washington can dispute that fact.

"A counter proposal, equally worthy of serious consideration, is such reduction of the prescribed daily quotas of empty box cars that New England's principal railroads are required to fill, as will enable them to better meet the shipping requirements of the industries they serve."

Shippers Board Meetings

The Southeast Shippers Advisory Board will hold its 24th annual meeting on March 20, at the Hotel Thomas Jefferson in Birmingham, Ala. Major General John C. Perkins, president of the First National Bank of Birmingham, will speak on "The Awakened South," and Laurence F. Whittemore, formerly assistant to the president of the Boston & Maine and the Maine Central, and now president of the Federal Reserve Bank of Boston, Mass., will speak on "New England Economy."

The seventy-fourth regular meeting of the Southwest Shippers Advisory Board was held at the Hotel Galvez, Galveston, Texas on March 6 and 7, 1947.

Committee meetings were held on March 6. The board in regular session March 7 approved "in principle" H. R. 221 and S. 110, the so-called Bulwinkle Bill.

The board also went on record as opposed to any order that will increase demurrage at ports on export traffic regardless of whether issued by I. C. C., O. D. T. or A. A. R. A special committee of six members was appointed to take such action as may be necessary to oppose such order or orders being issued or to act immediately to have such orders that have been or may be issued rescinded. It was stated such orders would be damaging to shippers.

The principal speaker at the luncheon program was V. W. McLeod, president of the Galveston Chamber of Commerce. R. E. Clark, manager, Car Service Division, A. A. R., addressed the meeting on national transportation conditions, and H. E. Stringer, assistant to chairman, Car Service Division, spoke on claim prevention and the April "Perfect Shipping Campaign."

Vista-Dome Car Tested

A Vista-Dome passenger car, the first of an order which is being built by the Budd Company of Philadelphia for the Chicago, Burlington & Quincy, has been completed except for the trim, and was tested for strength at the Philadelphia plant of the Budd Company on March 11, in the presence of a large number of rail-

road officers. The car was subjected to the following four tests in the railway car test laboratory: 800,000 lb. compression load at coupler height; 500,000 lb. compression load at buffer height; jacking at diagonally opposite bolster pads, and jacking at diagonally opposite corners. The car withstood all of the applied loadings without distress in any part of the car body. While deflection is not a measure of strength, the deflection under the 800,000 lb. coupler load was less than one-half the A.A.R. recommended maximum.

Slow Progress of Canadian Rate Case Irks Board

Slow progress in the Canadian freight-rate case drew expressions of concern from members of the Board of Transport Commissioners as the inquiry at Ottawa rounded out its first month, with one commissioner declaring he had in this time heard no evidence to indicate a necessity for increases. This declaration, by Commissioner J. A. Stoneman, was agreed to by counsel for the Canadian Pacific, who said they had not yet had an opportunity of presenting their case fully and accused provincial representatives of "obstruction."

Discussion over the pace of the inquiry broke out as C. H. Locke, British Columbia counsel, put in requests for documents bearing on delays in obtaining C. P. R. equipment caused by wartime controls. Railway counsel protested against "endless" demands for the production of papers. Chief Commissioner J. A. Cross said he was "anxious" about the progress of the inquiry, and declared it seemed to be getting along slowly.

Assistant Chief Commissioner J. A. Wardrope, remarking that the provinces were trying to prove past errors in judgment by C. P. R. officials, said he wondered how far back the inquiry should go in this regard.

"It seems to me we need the facts as they are today," he added. "Suppose that, with all past errors, it is established that the railways cannot carry on without rate increases," he said. "Then what do we do?"

The issue, Commissioner Stoneman said, was the present financial position of the company. "I haven't heard anything yet from the witnesses that would indicate to me there is any necessity for an increase in rates," he declared.

Additional F. R. P. Officers

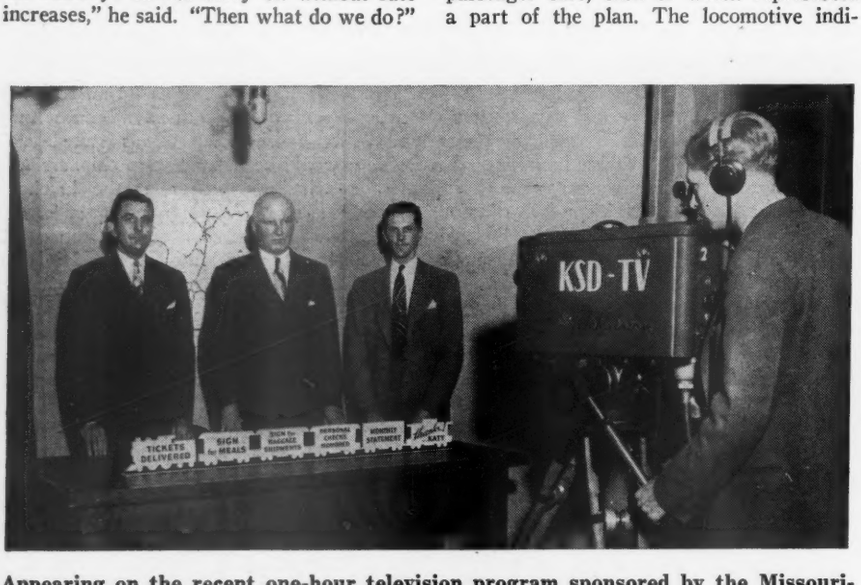
Livingston Goddard has been named secretary and J. J. Anzalone, treasurer of the Federation for Railway Progress, according to an announcement by Robert R. Young, chairman.

Mr. Goddard is a graduate of Yale University and Harvard Law School. Upon being graduated from the latter in 1935, he was appointed assistant district attorney of New York county, serving under both Thomas E. Dewey and Frank S. Hogan. In 1941 he joined the civilian staff of Operations Analysis Section, United States Army Air Forces, where he was deputy chief with the 21st Bomber Command on Guam. Mr. Goddard will make his headquarters in New York. Mr. Anzalone is an alumnus of De Paul University, and will make Cleveland, Ohio, his headquarters.

Katy Publicizes Credit Plan on Television Program

A one-hour television program recently publicized the travel-credit plan of the Missouri-Kansas-Texas over radio station KSD-TV, at St. Louis, Mo. Between the acts of a drama, which featured the program, Donald V. Fraser, president of the Katy, and J. F. Hennessey, Jr., vice-president in charge of traffic, appeared before the television cameras to explain the road's credit plan.

The telecast opened with the letters "M," "K" and "T" appearing successively on the receiving screens, followed by the Katy emblem. The audience was shown pictures of the cities served by the road, accompanied by comments by the announcer. Mr. Hennessey illustrated the Katy credit plan with a pasteboard locomotive and four passenger cars, each of which represented a part of the plan. The locomotive indicated "tickets delivered" the baggage car was marked "sign for baggage shipments"; the diner represented the credit service, "sign for meals"; the first passenger car illustrated "personal checks honored"; and the second passenger car was labelled "monthly statement." At the close of his remarks Mr. Hennessey added a paper caboose to the train which read, "Thanks—Katy." "This is to make the train complete," he told his audience.



Appearing on the recent one-hour television program sponsored by the Missouri-Kansas-Texas, which publicized the road's travel-credit plan, were: (center) Donald V. Fraser, president of the M-K-T; (left) J. F. Hennessey, Jr., vice-president—traffic; and (right) Don Faust, announcer for radio station KSD-TV, at St. Louis, Mo.

C. of C. Committee Recommends Passage of S. 110

Endorsement of S. 110, the bill introduced by Senator Reed, Republican of Kansas, to stay the operation of anti-trust laws with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission, is among the recommendations which will be submitted to the Board of Directors and Policy Committee of the Chamber of Commerce of the United States for presentation to the chamber's membership for final approval it was announced last week following a two-day meeting of the C. of C.'s Transportation-Communication Committee.

According to the latter committee, the views of which were made public in the March 7 issue of "Business Action," official organ of the C. of C., small shippers would be at a disadvantage if joint conferences were prohibited and rate-making reverted to bargaining between individual shippers and carriers. It said that contrary to recent contentions from non-business sources, Senator Reed's bill is "definitely" in the public interest.

The committee advocated the need for a "more positive recognition" of the fair-return principle in the congressional declaration of the National Transportation Policy. It noted that the "dilemma" confronting all types of carriers of "red ink" operations was due to inflated wage and material costs, which "under the slow processes of government regulation, can be offset only after long delays by increased rates and charges."

Strong recommendations also were adopted calling for (1) positive steps to increase the supply of new transportation equipment and repair materials; (2) utmost effort on the part of the carriers to expedite their services; and (3) continued cooperation of transportation users in getting the most efficient use of equipment, particularly freight cars, through quick and full loading and unloading schedules and not limiting such work to a five-day week.

With respect to air transportation, the committee found that a proposal for "opening wide" the doors of air freight operation on regular routes and schedules, pending action by the Civil Aeronautics Board on applications for permanent certificates, would be contrary to the established principles of proper public regulation supported by the C. of C. and would result in unfair competition with certificated air lines, in addition to encouraging "premature investment" in new operations that "might be found nuwarranted." At the same time, the committee emphasized "keeping down" the federal and "strengthening" the state and local share with respect to the Federal

Airport Act and related airway modernization undertakings.

The committee also recommended a date for disposal of the barge lines operated by the government-owned Inland Waterways Corporation, which, it said were burdening taxpayers and discouraging private barge operators.

With respect to labor legislation, the committee consensus was that if reasonable changes in present labor laws applying to all branches of business are adopted by Congress so as to put labor-management relations on a fair and impartial basis, the danger of strikes and other unsatisfactory conditions in transportation and communication industries will be so minimized that the public interest can be protected and best served without any new special treatment.

Speaker Emphasizes Inequity of Crosser Act Taxes

Too few persons, even those employed in the railroad industry itself, realize that for each $3,600, or more, a railroad pays an employee each year, it must now pay a tax of an additional $315 for social security benefits, while truckers, air lines and waterways pay only an average of $90 for each employee getting $3,000 per year or more, Robert M. Edgar, assistant to the president of the Maine Central and the Boston & Maine, said in a recent discussion of "tax inequalities" before the Augusta, Me., Rotary Club.

"This additional tax which has recently been placed on the railroads of the country by the Crosser Act", said Mr. Edgar, "is but one of several inequalities in taxation which have been foisted on the railroads."

These glaring inequalities are a threat to railroad security holders and to railroad employees, he observed, and through the railroad securities which are held by banks and life insurance companies they affect everyone in the country who has a bank account or holds an insurance policy. "Neither the trucking industry nor the commercial air lines are being assessed anywhere near the taxes which have been and are continuing to be piled onto the railroad industry" he continued, "and yet there are those who have termed the railroads 'un-American' because we protest inequalities of taxation."

Hill Gives Data to Refute the "Watered Stock" Argument

If all interest charges on railroad bonds were eliminated the average freight rate per ton-mile could have been reduced in 1945 only 5.9 per cent (0.57 mills), that is, from 9.59 mills to 9.02 mills, J. B. Hill, president of the Louisville & Nashville, pointed out this week in an advertisement which appeared in many newspapers.

Giving the figures for the total capitalization of Class I railroads as compared to their Interstate Commerce Commission valuation and calling attention to the reduction in long-term debt and interest rates accomplished in recent years, the advertisement challenged as "contrary to the facts" the claim still made occasionally by "misinformed persons" that "railroad capitalization is 'watered'." For example, Mr. Hill said:

"A newspaper editor recently referred to railroad bonds held by the public as 'terrific' and that bankers had such a tenacious hold on railroads, management was not allowed to pay off railroad bonds. He also said that although railroads 'made handsome earnings during the war they still shouldered the *same* old debt' and it was this load (the bonded debt) that required high freight rates which penalize the public, discouraged development of natural resources and held back industrialization of the South."

The same facts, in somewhat greater detail, were set forth by Mr. Hill in a message to employees appearing in the road's employee magazine, in which the "watered capital" statements were attributed to "persons either ill-informed or else hostile to railroads." "Railroad men should know and spread the truth and the public should not be permitted to believe such nonsense," he added, and "in all such things management, employees and investors must maintain a solid front, not only in their own but in the public's interest."

Inland Steel to Manufacture "Cor-Ten"

The Carnegie-Illinois Steel Corporation, a subsidiary of the United States Steel Corporation, has announced that the Inland Steel Company has been licensed to manufacture "Cor-Ten," the high-strength, corrosion-resistant, low-alloy steel developed by Carnegie-Illinois. Inland Steel, in turn, has licensed Carnegie-Illinois to manufacture "Hi-Steel," a high-strength, corrosion-resistant, low-alloy steel developed by Inland Steel. Before 1944, the announcement said, "Cor-Ten" was produced solely by United States Steel subsidiaries. Since then, six companies, including Inland Steel, have been licensed to manufacture the special steel.

* * *

Club Meetings

G. Servin, general agent of the National of Mexico, has been elected president of the Railroad General Agents Association of Los Angeles. Other general agents elected were: First vice-president, G. W. Amey, Grand Trunk Western; second vice-president, C. B. Mason, Chicago, Rock Island & Pacific; third vice-president, R. C. Horner, Atchison, Topeka & Santa Fe; and secretary-treasurer, M. L. Becker, New York, Chicago & St. Louis.

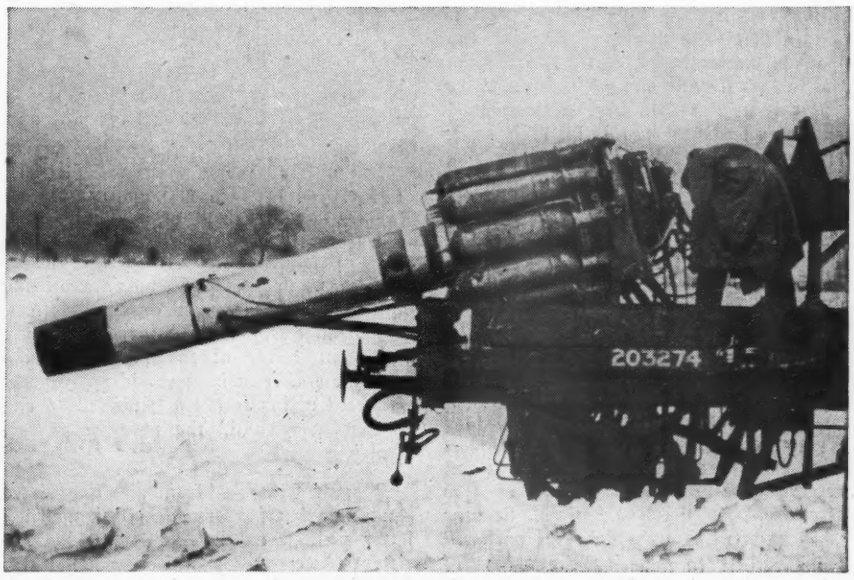
The New York Railroad Club will hold its next meeting at the Engineering Societies Building, New York, on March 20, at 8 p. m. E. S. Thompson, manager, Aircraft Turbine Division of the General Electric Company, will speak on Aircraft Gas Turbines and his talk will be illustrated by a sound film entitled "Jet Propulsion."

George A. Kelly, executive vice-president of the Pullman Company, will address the Central New York Industrialists at a dinner meeting on March 25, at the Sheraton Hotel, Rochester, N. Y. His subject will be "Business and Public Relations: Past, Present, Future."

The Indianapolis Car Inspection Association will meet at 7 p. m., April 7, in the Committee room, Indianapolis Union Station. A regular business meeting is planned.

A meeting of the New England Railroad Club has been scheduled for April 8 at the Hotel Vendome, Boston, Mass., at 6:30 p. m. A paper on "Post War Railroad Mechanical Department Problems" will be presented by F. K. Mitchell, general superintendent, New York Central.

The next meeting of the Central Railway Club of Buffalo (N. Y.) will be held on April 10 at 8 p. m., in the Fillmore room, Hotel Statler, Buffalo. Charles F. Kottcamp, assistant to director of research, Bituminous Coal Research, Inc., will present a paper on the coal-burning gas turbine locomotive.



British Try New Snow Remover

One expedient adopted by the British railways to cope with the exceptional snows that have plagued them this winter is the use of the hot blast from the exhaust nozzle of a jet-propulsion airplane motor to remove drifts blocking the tracks It is reported that in 5 min. a stretch of track 75 yards in length was cleared of snow from 18 to 54 in. deep.

General News Department is continued on page 585.

With the Government Agencies

Tobey Files Minority Report on Reed Bill

New Hampshire Republican sees end of competition if S. 110 is passed

Adoption of S. 110, the bill introduced by Senator Reed, Republican of Kansas, to stay the operation of anti-trust laws with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission, would "result in the worst kind of special legislation for special interests" and would "constitute a most dangerous precedent which could henceforth be used to justify the exemption of any or all industries from the safeguards of the anti-trust laws," it was asserted by Senator Tobey, Republican of New Hampshire, in a minority report on that measure which he filed in the Senate on March 7.

As noted in *Railway Age,* March 8, page 512, Senator Tobey, together with Senator McFarland, Democrat of Arizona, cast the dissenting ballots when the Senate committee on interstate and foreign commerce voted by 7-to-2 on March 3 to report favorably an amended version of S. 110 to the Senate. Although Senator Tobey expressed only a portion of his minority views on the measure in the Senate on March 7, his entire report was printed in the Congressional Record for that day.

Sees Wheels "Greased"—According to Senator Tobey, passage of S. 110 would result in the extinction of "free and competitive economy" in the United States. He said that "one of those" favoring the bill made the statement that "we have the votes to pass the bill, and we have the votes to pass it over a veto by the President." "That may be true," he told his colleagues. "The wheels may all be greased by fine Italian handwork that may have been done; men may have been seen and cajoled and even threatened, but the Senate of the United States still stands, and I believe in the integrity of its members and in the cause I represent on this floor."

Senator Tobey charged that enactment of S. 110 would "cut the anti-trust laws from the heart of our economy—the transportation industry." He said that such legislation would be an "opening wedge" in entirely destroying the anti-trust laws which, he said, are designed to "guard and preserve" the American system of free enterprise. At the same time, Senator Tobey asserted that the "obvious purpose" of the bill is to "deprive the courts of jurisdiction" in the anti-trust actions pending against the railroads in the so-called Georiga and Lincoln, Neb., cases.

In his analysis of the bill, Senator Tobey said that approval of agreements "permitting the (transportation) industry to organize into combinations and by joint action to make determinations of wide scope" would constitute "a delegation to private groups completely to cartelize transportation." He added that the bill would make it possible for the railroads, motor and water carriers, freight forwarders and pipe lines to "combine into private organizations and to take concerted action determining with immunity the rates to be charged, the quality of service to be performed, and the facilities to be installed in each mode of transportation."

Would Aid "Monopoly"—Under the provisions set out in paragraph (9) of the bill, according to Senator Tobey, financial and powerful shipping interests, acting through rate-making and other procedures provided in agreements approved by the I.C.C., could ally themselves with the dominant carrier associations to fix transportation rates and limit transportation services so as to "stifle" new competitors and perpetuate monopoly.

"Similarly," his report noted, "the bill would permit the reestablishment of old arrangements existing under the illicit 'Pullman monopoly' recently divested by the courts in an anti-trust suit brought by the Government. This monopoly . . . would be restored and the court's mandate nullified. The approval by the Interstate Commerce Commission . . . is not merely with respect to rates or other specific action agreed upon or taken by carriers. Under the scheme of the legislation here proposed, the commission would approve the basic plan of organization setting up the rules, regulations, and procedures under which the private cartel could regiment and control transportation."

Senator Tobey said that the amendments to paragraph (9) "contain much verbiage but fail utterly to contravene the power of the monopoly group, once its plant of organization is approved by the commission." "The second proviso, that approval of an organization agreement providing for procedures on time schedules, facilities, settlements of claims, and other non-rate matters 'shall no be deemed to be approval of any joint or concerted action' on such matters, is meaningless," he continued, "because under the terms of the bill, exemption from the anti-trust laws would apply when concerted action is taken 'pursuant to and in conformity with' the approved agreement."

Berge's Views—Meanwhile, the printed committee hearings on S. 110 included a letter written to Senator Tobey by Assistant Attorney General Wendell Berge in which the latter set forth in detail his views on the suggested changes to the bill which had been submitted to the committee

(*Continued on page 571*)

Circumstances of 3 Derailments Reviewed

I. C. C. reports on one caused by obstruction and two by transverse fissures

Reports on three passenger train derailments, which resulted in the deaths of 12 passengers and 1 employee, have been made by the Interstate Commerce Commission following investigations conducted under the supervision of Commissioner Patterson. The accidents occurred January 27 on the Pennsylvania at Walton, Ind., where 3 passengers and 1 train-service employee were killed and 33 passengers, 9 dining-car employees and 3 train-service employees injured; January 17 on the Southern Pacific at Lerdo, Calif., where 8 passengers were killed and 86 injured; and February 7 on the St. Louis-San Francisco near Republic, Mo., where 1 passenger was killed and 12 passengers and 2 Pullman employees injured.

The first was found to have been caused by an obstruction placed on the track by two boys, 10 and 11 years of age, while the other two resulted from broken rails in which unexposed transverse fissures were found. All three trains involved were operating at their maximum authorized speeds ranging from 60 to 70 m.p.h.

At Walton, Ind.—The P.R.R. accident occurred on that part of the Cincinnati-Chicago line extending from Greens Fork, Ind., (near Richmond) to Anoka (near Logansport), 93.4 miles of single-track over which trains are operated by timetable, train orders and a manual block system. At Walton an auxiliary track, designated as track No. 6, parallels the main track on the north, and 1,469 ft. west of this auxiliary track's west switch is the switch of a spur track, designated as No. 5, which parallels the main track on the south. The accident occurred at the west switch of track No. 6 and the general derailment followed at the switch of track No. 5.

Both switches are provided with No. 10 turnouts. The structure of the main track consists of 130-lb. rail laid on 22 ties to the rail length of 36 ft. It is fully tie-plated, single-spiked, provided with 6-hole angle bars, an average of 8 rail anchors per rail length, and is ballasted with stone and gravel to a depth of 12 in. The main track is tangent throughout a distance of 14.1 miles immediately east of the point of the accident and 5.2 miles westward; but the derailment occurred at 6:03 p.m., when it was "dark" and the weather "hazy."

The train involved was No. 207, the "Union," a westbound first-class train consisting of a locomotive and 8 all-steel cars. It was estimated to have been moving at its maximum authorized speed of 60 m.p.h.

when it struck the obstruction, and the locomotive, the first five cars and the front truck of the sixth car were derailed. The engine stopped in reverse direction on its side 1,787 ft. west of the point of derailment. The tender became detached from the engine and stopped upright, off its trucks, and the first car stopped on its side on top of the tender. The second to fifth cars stopped upright in various positions across the main track. All the derailed equipment was considerably damaged. The engine and the second and third cars struck and damaged five freight cars that were standing on track No. 5.

Fence Wire on Track—The investigation disclosed that the two boys had placed the obstruction on the track about 30 minutes before the accident, at a point about 313 ft. east of the initial derailment point. It consisted of a roll of wire fencing, 22 in. in diameter and 48 in. in length, 2 boards of 10 ft. and 3 ft. in length and several pieces of pipe of various lengths, all P. R. R. property which was on the right-of-way. The first that any member of the crew knew of anything being wrong was when the engineer "felt an unusual movement of the front of the engine," and immediately moved the brake valve to emergency position.

"The marks on the track structure immediately east of the point of derailment and westward from the west switch of track No. 6 to the spur-track switch," the commission concluded, "indicate that the roll of wire became wedged under the pilot of the engine and was moved westward to the west switch of track No. 6 where the wire became wedged between the rails of the switch and the main track. At this point the left front engine-truck wheel was raised high enough by the roll of wire for the flange to mount the south rail. Then the flange continued on top of the rail to a point where the left wheel dropped outside the south rail and the right wheel dropped inside the north rail. These wheels continued in line with the main track to the facing-point switch of the spur track, then the general derailment occurred."

At Lerdo, Calif.—Lerdo, where the S. P. accident occurred, is on that part of the San Joaquin division extending between Fresno, Calif., and Bakersfield, 107.4 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. The track structure consists of 110-lb. rail, 33 ft. in length, rolled in 1923 and laid during February, 1925, on an average of 20 treated ties to the rail length. It is fully tie-plated, single-spiked, provided with 4-hole angle bars 24 in. in length, an average of 8 rail anchors per rail length, and is ballasted with slag to a depth of 6 in. The derailment occurred at 2:45 a.m. when the weather was "clear" and the train involved, No. 58, was moving on tangent track at its maximum authorized speed of 65 m.p.h.

No. 58, the eastbound "Owl," consisted of a locomotive and 15 cars of all-steel construction, these being, in the order named, three baggage cars, five coaches, two sleeping cars, one dining car, and four sleeping cars. In the accident, the rear truck of the fourth car, the fifth to fourteenth cars, inclusive, and the front truck of the fifteenth car were derailed. The engine and the first four cars stopped on the track 1,758 ft. east of the point of derailment. Separations occurred between the fourth and fifth cars, and between the eighth and ninth, the ninth and tenth and the tenth and eleventh cars. The derailed cars stopped in various positions alongside the main track and across a parallel auxiliary track with the front of the fifth car 1,074 ft. east of the point of derailment. The fifth to twelfth cars, inclusive, were "badly damaged," and the fourth, thirteenth and fourteenth cars were "slightly damaged."

Fissure Concealed—The last automatic signal passed by the train was 2,751 ft. west of the point of the accident, and it displayed "proceed." The first any member of the crew knew of anything being wrong was when the brakes became applied in emergency as a result of the derailment. The defective rail was found to have been broken "into many pieces," 17 of which were recovered.

The first break occurred at a point 11¼ in. east of the receiving end of the rail, where there was an angle bar which held the broken piece in place, although the receiving end of the break was "battered considerably." The second break occurred between two ties at a point 24 in. east of the first break. At the first break there was a transverse fissure which covered 84.9 per cent of the cross-sectional area of the head of the rail but did not extend to the outer surface. The remainder of the breaks were found to be new.

"It is probable," the report said, "that the complete failure of the rail at the location of the first and second breaks occurred when the front portion of No. 58 passed over it, then the piece between these breaks became displaced and the derailment followed. The remainder of the breaks in the rail occurred as a result of the derailment."

The rail involved registered no defect when a detector car was last operated over the territory in October, 1946. About two months prior to the accident, metal was welded to the head at the ends of the rail, and the ends were shaped to contour by grinding. About one week before the accident occurred the rail in question was inspected by the mirror method, and no defective condition was observed. And about 30 minutes before the derailment, a westbound passenger train passed over the track, and its crew "did not observe any abnormal condition."

Near Republic, Mo.—The Frisco accident occurred on that part of the Eastern division extending between Monett, Mo., and Springfield, 42.9 miles, the line in the vicinity of the point of accident (2.32 miles west of the station at Republic) being single track over which trains are operated by signal indications. The track structure consists of 110-lb. rail laid on 23 treated ties to the rail length of 39 ft. It is fully tie-plated, single-spiked, provided with 4-hole angle bars 24 in. in length, an average of 6 rail anchors per rail length, and ballasted with chat to a depth of about 16 in. The rail which broke was rolled in April, 1930, and laid in July, 1930.

The weather was "clear" when the derailment occurred at 6:14 p.m., and the train, No. 4, was moving on tangent track at an estimated speed of 70 m.p.h., which was its limit. It was the eastbound "Will Rogers," consisting of a locomotive and 8 cars, all-steel except the first (a baggage car) which was of steel underframe construction. The fifth to the eighth cars, inclusive, were derailed, but remained coupled and stopped on the roadbed "practically" in line with it, with the front end of the fifth car 925 ft. west of the rear of the fourth car. The latter with the three cars ahead of it had remained on the track with the engine, which stopped with its front end 1,980 ft. east of the point of derailment. Three of the derailed cars remained upright and were but "slightly" damaged, but one (the eighth, a sleeping car) stopped on its side and was "considerably" damaged.

The last automatic block signal passed by the train is located 2,034 ft. west of the point of the accident. It displayed "proceed," and the first that any member of the crew knew of anything being wrong was when the brakes became applied in emergency as a result of the derailment. The rail involved was found to have been broken through the head, the web and the base at 13 locations, the first break occurring 17 ft. 5½ in. east of the receiving end of the rail.

Four Fissures—The receiving ends of the first, fourth, fifth, sixth, eighth and ninth breaks were "battered," and at breaks Nos. 1, 6, 7 and 8 "there were transverse fissures which covered, respectively, 18 per cent, 6 per cent, 5 per cent and 10 per cent of the cross-sectional area of the head of the rail." None of these fissures extended to the surface of the rail, and the other breaks were found to be new. "Apparently," the report concluded, "the failure of the rail at the location of the transverse fissures occurred when the front portion of the train passed over the rail, then the pieces between the breaks were forced out of normal alinement, and the derailment occurred. The other breaks evidently occurred as a result of the derailment."

The report also pointed out that the track was last inspected by the section foreman about 9 hours before the derailment occurred, and "no defective condition was observed." A detector car was last operated over the territory in July, 1946, and that test "did not disclose any defect in the rail."

Order in Ex Parte 162

Acting upon a petition filed by the government-owned Inland Waterways Corporation, which was supported by the American Barge Lines, the Interstate Commerce Commission has issued its first supplemental order in the Ex Parte 162 freight-rate-increase case, stipulating that the increase in rail rates on sulphur, in carloads, from Texas mines to Galveston, Tex., should be limited to 15 cents per gross ton. The original order permitted a maximum increase of 45 cents per gross ton on sulphur, so the commission said that its present decision to limit the Texas-mines-to-Galveston increase to 15 cents

"will permit an increase of 30 cents per gross ton to be applied to the barge rates from Galveston to Chicago, Detroit, Mich., and other points taking the same rates, which will maintain the same relation between the all-rail rates and the rail-barge rates as existed on June 30, 1946."

The dissent of Commissioner Mahaffie was noted, while Commissioners Barnard and Mitchell, "being necessarily absent," did not participate.

Truman Names F. A. O'Neill, Jr. to Mediation Board

President Truman on March 7 sent to the Senate his appointment of Francis A. O'Neill, Jr., of New York City, to membership on the National Mediation Board for a term expiring February 1, 1950. Mr. O'Neill, an attorney, has been chief trial examiner of the New York State Labor Relations Board since April, 1946. The White House announcement said he is a Republican.

The Railway Labor Act provides that not more than two of N. M. B.'s three members shall be of the same political affiliation. The most recent Republican member was George A. Cook who retired last June 30. Since Mr. O'Neill has been named for the three-year-term vacancy created by the recent retirement of H. H. Schwartz, there remains the vacancy created by the Cook retirement in the middle of a term which was scheduled to expire February 1, 1948. Meanwhile F. P. Douglass has been N. M. B.'s only member since Mr. Schwartz retired on February 1.

Johnson Calls Meeting to Speed Output of Freight Cars

Representatives of railroads, car lines, car builders and specialty and component manufacturers were scheduled to meet with Colonel J. Monroe Johnson, director of the Office of Defense Transportation, in Washington, D. C., on March 13 and 14 for the purpose of "developing an aggressive production program" for the building of new freight cars on a minimum monthly schedule of 10,000 cars, and "surveying the field" as to the prospects for meeting that production schedule and the requirements necessary for a freight car repair program.

According to the O. D. T., the representatives of the various groups were to select a "task committee" to work with and advise O. D. T. with respect to maintaining a proper flow of steel in each plant, including that used for specialties and components. The committee also is expected to advise the railroad car builders and component manufacturers of available steel items which they are unable to locate and assist in "overcoming any bottlenecks" which may develop. The O. D. T. said the meetings were scheduled in compliance with a suggestion by a subcommittee of the Senate committee on interstate and foreign commerce which has been investigating the freight car shortage.

Among those who were expected to attend the meetings were H. B. Spencer, president, Fruit Growers Express Company; G. Metzman, president, New York Central; P. J. Neff, chief executive officer, Missouri Pacific Lines; Ernest E. Norris, president, Southern; Edwin Hodge, Jr., president, Greenville Steel Car Company; Champ Carry, president, Pullman-Standard Car Manufacturing Company; F. A. Stevenson, president, American Car and Foundry Company; James Suttie, vice-president, American Steel Foundries; S. H. Conwell, vice-president, Standard Railway Equipment Company; E. E. Robbins, vice-president, Youngstown Steel Door Company; C. N. Stoner, executive vice-president, Association of Manufacturers of Chilled Car Wheels; A. N. Williams, president, Westinghouse Air Brake Company; and H. A. Brooks, manager of sales, W. H. Miner Company.

Subcommittee Named to Report on Senate Resolution 65

A subcommittee composed of Senator Reed, Republican of Kansas, chairman; Senator Hawkes, Republican of New Jersey; and Senator Myers, Democrat of Pennsylvania, has been appointed by Senator White, Republican of Maine, chairman of Senate committee on interstate and foreign commerce, to submit a report to the committee on Senate Resolution 65. As noted in *Railway Age*, February 1, page 289, the resolution, introduced by Senator Reed for himself and Senator Myers, calls for further investigation by the committee of conditions surrounding the operation and handling by trustees and receivers of railroads undergoing financial reorganization.

According to Senator White, the subcommittee, formed upon the suggestion of Senator McFarland, Democrat of Arizona, will base its report on the study of testimony introduced at last year's hearings on S. 1253 and on information which can be obtained from the Interstate Commerce Commission. S. 1253, which contained provisions making voluntary reorganization procedures available to large roads already in bankruptcy as well as to all roads not in the hands of the courts, was "pocket vetoed" last year by President Truman following its passage in Congress.

Fare Increase Hearings Open in Washington March 31

Hearings in connection with the Interstate Commerce Commission's investigation of the eastern railroads' application for general increases in passenger fares will open in Washington, D. C., March 31 before Commissioner John L. Rogers and Examiner Burton Fuller. These Washington sessions will be confined to the proposed increases in basic coach and Pullman fares while the proposed increases in commutation rates will be the subject-matter of hearings opening April 22, also before Commissioner Rogers and Examiner Fuller, at the Hotel St. George, Brooklyn, N. Y.

The hearing schedule was announced by the commission in a March 7 notice in the proceeding, which has been docketed as No. 29711. On the same day the commission issued another notice in No. 29678, announcing that this proceeding, which embraces fare-increase applications of the New York, New Haven & Hartford, would also be heard at Brooklyn, April 22 in so far as it involves commutation rates and a request for a commission order authorizing the establishment of New York intrastate fares on the same basis as may be authorized on interstate traffic. Meanwhile the New York hearing in the New Haven case, previously assigned for March 27, has been canceled. Initial hearings on the New Haven application, which was filed earlier but seeks increases similar to those now proposed by eastern roads generally, were held recently at Hartford, Conn. (see *Railway Age* of March 1, page 469).

As reported in the issue of March 8, page 504, the general application was filed by roads of the Eastern district and Pocahontas region, and it seeks to increase basic fares from 2.2 cents to 2.5 cents per mile in coaches and from 3.3 cents to 3.5 cents per mile in parlor and sleeping cars. Also the applicants, except the Pennsylvania and Central of New Jersey, are proposing to raise commutation fares in some instances by approximately 20 per cent and in others by specific amounts.

The hearing notice reported that the commission has received "numerous letters" with respect to the proceeding. "All interested parties," it added, "are advised that factual data or expressions of opinion pertinent to the issues cannot be considered by the commission if presented only in the form of letters but must be presented in the form of testimony or other evidence at the public hearings in order to be considered by the commission."

More Cars Only Shortage Cure, Johnson Tells A. U. Students

Colonel J. Monroe Johnson, director of the Office of Defense Transportation, asserted last week that the "more cars" required to relieve present shortages will be forthcoming if the people make their demand for them sufficiently vociferous. The O. D. T. director made this assertion in a March 12 address before students attending the second Rail Transportation Institute being conducted by the American University, Washington, D. C., under the direction of Dr. L. M. Homberger, professor of transportation at the university.

Colonel Johnson, as he put it, believes that the American people can get anything they want, "even a decision of the Supreme Court," if they insist on it. He predicted that the railroads will soon be able to meet only 75 per cent of the demand on them for transportation, but didn't know "how quietly" the American people would take that. He did know that they have been "vociferous to me" when 85 per cent of the demand was being met. As he sees it, "the most expensive thing to a nation is scarcity of transportation."

Meanwhile, the O. D. T. director discussed recent conferences which resulted in the steel industry's commitment to supply materials for the building of 10,000 new freight cars a month. Colonel Johnson thought this indicated some progress in that the 10,000-car monthly program was "on paper," but he expressed doubt that production would be at that level by August. He went on to say that the car-building industry still claims to have capa-

city for 16,000 cars a month (the number built in 1913); and he was sure that if sufficient public demand came the industry could build "as many cars as America wants." In this connection, he cited the wartime production of radar equipment for which there was "no capacity" when the war began.

The O. D. T. director, as he said, finds it difficult to understand the low production totals of recent months when he recalls that 10,000 cars a month were often built during the war while the average for the whole war period was 3,000 to 4,000 a month. Considering what requirements will have to be he predicted that it will take eight years to add 300,000 freight cars to the present supply.

Colonel Johnson also told of efforts he is making to augment the domestic supply of scrap by persuading the military authorities that they should bring back scrap from the war zones. He indicated that such efforts are meeting some success as he answers arguments that the return is not economically justified with a query as whether it is uneconomical to transport scrap when it is bringing up to $45 a ton or only about $10 less than the price of finished steel.

Chairman Clyde B. Aitchison and Commissioner Walter M. W. Splawn of the Interstate Commerce Commission also attended the meeting, and the latter made a brief talk. Other guests included E. H. Bunnell, vice-president of the Association of American Railroads, and Warren C. Kendall, chairman of the assocation's Car Service Division.

I. C. C. Insists on Restricting Santa Fe Truck Routes

Division 4 of the Interstate Commerce Commission has thwarted what it found to be an "apparent" effort on the part of the Santa Fe Trail Transportation Company to avoid extension to certain of its unrestricted truck routes, of commission imposed conditions designed to keep the highway freight operations auxiliary to services of its parent railroad, the Atchison, Topeka & Santa Fe. Transportation sought approval of modifications in arrangements, previously approved by the commission, whereby it is acquiring common-carrier rights over some 1,500 route miles in Kansas, Oklahoma and Colorado from the Hall Motor Freight Company, Vincent Truck Lines and Riley Truck Lines.

The proceeding is docketed as No. MC-F-2289 and the prior report, approving the transactions subject to the susual conditions, was noted in the *Railway Age* of December 7, 1946, page 974. The petitions for modification sought to eliminate from the purchases interstate operating rights of the respective vendors which duplicate operating rights presently possessed by Transportation. "Although not so stated in the petition," the division's report on reconsideration said, "it is apparent that the purpose of the proposed modifications of the transactions is to avoid the effect of the said conditions with respect to routes of Transportation which coincide with those originally proposed to be acquired, over which Transportation presently is not limited to the rendition of service auxiliary to, or supplemental of, train service."

The report proceeded to approve some of the proposed modifications but nevertheless imposed the conditions with respect to the "operating rights to be acquired and the operating rights of Transportation which are over routes coinciding with those herein authorized to be acquired, with duplications eliminated." The majority report represented the view of Commissioners Mahaffie and Rogers, and Commissioner Miller, the other member of Division 4, filed a brief dissenting-in-part opinion.

Tobey Files Minority Report on Reed Bill

(*Continued from page 568*)

by R. W. Purcell, vice-president, law, of the Chesapeake & Ohio. Mr. Berge's letter, dated February 17, was written at the request of Senator Tobey, who had forwarded a copy of Mr. Purcell's suggestions to the transportation section of the Justice Department's anti-trust division.

Declaring that he has always emphasized that the preservation of the purpose of the Interstate Commerce Act to maintain competition between carriers in the determination of rates to be charged is "vital to our entire competitive economy," Mr. Berge said that the power to determine the price to be paid for a service is "of itself sufficient to stifle attempts by an enterprising carrier to upset the status quo in the industry."

"The exercise of the power to fix transportation costs is a weapon which, in alliance with industrial combines, may be used to kill competition in the sphere of industry as well as in transportation," he said. "Mr. Robert R. Young . . . apparently recognizes this when he undertakes 'to do all possible to defeat the . . . bill pending in Congress. However, Mr. Purcell's suggestions [which were outlined in *Railway Age*, February 22, page 425] would leave the bill just as he found it—a serious threat to our competitive system."

Car Service Orders

Service Order No. 692, effective from March 21 until June 30 unless otherwise modified, has been issued by the Interstate Commerce Commission to require that lumber, veneer or forest products as listed in items 26715 to 27135 of the Consolidated Freight Classification must be reconsigned within 48 hours after the first 7 a.m. after notice of arrival is sent or given, excluding Sundays and bank holidays. Railroads are required to announce suspension of conflicting tariff rules by filing supplements to the tariffs affected, and the order further provides for permits to be issued by the director of the commission's Bureau of Service.

Service Order No. 696, effective from March 11 until April 30 unless otherwise modified, establishes car-supply priority for export shipments of Maine potatoes consigned to the Army at Portland, Me. Maine railroads are required under the order to give preference to supplying not to exceed 150 refrigerator cars each "working day" to shippers holding certificates issued by the commission's agent—Joseph E. Barr, Presque Isle, Me. A similar set-up with respect to Red River Valley potatoes consigned to the Army at Corpus Christi, Tex., Beaumont, or Lake Charles, La., has been established under Service Order No. 697, also effective from March 11 until April 30. It requires the Great Northern, Northern Pacific, and Minneapolis, St. Paul & Sault Ste. Marie to give preference in supplying shippers holding certificates with not to exceed 200 refrigerator cars each "working day." The I. C. C. agent under this order is Wilson H. Clark, Grand Forks, N. D.

Amendment No. 10 to Service Order No. 369 and Amendment No. 3 to Service Order No. 653 provide that the "super-demurrage" charges on box cars, gondolas and hoppers, as extended by Amendments Nos. 9 and 2 to import, export, coastwise, and intercoastal traffic, will be in lieu of storage charges where port tariffs provide for the latter.

Service Order No. 698, effective from March 15 until June 30 unless otherwise modified, appoints F. S. Keiser as general grain agent of the commission at Chicago "for the purpose of executing written directions and instructions of V. C. Klinger, director, Bureau of Service . . . relating to service orders applicable to grain and grain products." Mr. Keiser will also "advise said director regarding measures he believes are necessary to aid in expediting the rail movement of cars loaded with grain and grain products."

Service Order No. 647, which was suspended January 15, was reinstated as of March 8 by Service Order No. 647-C. The order, which is now scheduled to expire June 30, provides for priorities on foreign-relief grain offered for loading at points in Oregon, Washington, Idaho and western Montana.

Whitney and Johnston Among Radio Station Stockholders

Alexander F. Whitney, president of the Brotherhood of Railroad Trainmen, and Alvanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers, are minority stockholders in the Cleveland Broadcasting Company, which the Federal Communications Commission has authorized to establish a new 5-kw. radio station, to operate on 1300 kilocycles, at Cleveland, Ohio. The F. C. C. decision, dated February 5, was made public on March 7.

It involves denial of an application of Scripps-Howard Radio, Inc., affiliate of the Scripps-Howard newspapers, which sought the same wave length for a Cleveland station. In deciding upon these "mutually exclusive" applications, the commission favored Cleveland Broadcasting because its principal officers and stockholders were residents of Cleveland, and also because they were men "with diverse backgrounds of law, industry, banking and labor."

The decision shows that Messrs. Whitney and Johnston each own 10 of the company's 750 shares of stock, each thus hav-

ing a 1.3 per cent interest. Information filed with the commission October 10, 1945, in connection with Cleveland's application shows that Mr. Whitney then listed his total assets at $219,030.81, consisting of $29,000 in cash; $81,243.75 in government bonds, at cost; $28,958.75 in other bonds and in stocks, at cost; $14,552.53 in mortgages and notes; $14,746.78 in cash-surrender values of insurance policies; $49,529 in real estate; and $1,000 in Cleveland Broadcasting stock.

The $970 due on the latter was listed as Mr. Whitney's only liability, so his net worth was put at $218,060.81. Another filing of September 24, 1945, reported Mr. Whitney's 1943 and 1944 incomes as $18,651.89 and $18,735.11, respectively.

Filings with respect to Mr. Johnston showed his total assets at $112,000, including $2,000 in cash; $94,000 in stocks; $15,000 in real estate (undivided half interest); and $1,000 in Cleveland Broadcasting stock. The $970 due on the latter was also Mr. Johnston's only liability, his reported net worth being $111,030. His income was shown at $19,750 for both 1943 and 1944.

Among other information filed with respect to Messrs. Whitney and Johnston was a listing of their service as "expert consultants" to the War Department during the December, 1943-January, 1944, period when that department operated the railroads. They had been taken over by the late President Roosevelt after he had persuaded only Messrs. Whitney and Johnston to accept him as arbitrator of the wage controversy in which all the railroad union leaders were involved. The positions of the labor leaders were reversed in last May's strike, when Messrs. Whitney and Johnston were the strike leaders.

In identifying briefly the various stockholders in Cleveland Broadcasting, the F. C. C. decision said that Messrs. Whitney and Johnston "are both prominent in the railroad labor field." Sixty per cent of the stock is owned by Ray T. Miller and Donald D. Hornbeck, law partners in the Cleveland firm of Miller & Hornbeck. Mr. Miller, who holds 350 shares or 46.7 per cent, was mayor of Cleveland in 1932-33.

Passenger Transportation Tax Retained at 15 Per Cent

The tax on amounts paid for passenger transportation will remain at 15 per cent as a result of recently-enacted legislation which was approved by President Truman this week. Previously the tax had been scheduled to be cut back to 10 per cent as a result of the President's December 31, 1946, order proclaiming the "cessation of hostilities of World War II."

The extra 5 per cent was among the wartime taxes imposed in 1944 for the period ending six months after the cessation of hostilities. The extension legislation, embodied in House bill 1030, provides for indefinite continuance of such taxes, but it does modify the transportation levy to exempt transportation "any part of which is outside the northern portion of the Western hemisphere, except with respect to any part of such transportation which is from any port or station within the United States, Canada, or Mexico, to any port or station within the United States, Canada or Mexico.

A statement by House members of the conference committee which reconciled the differing House and Senate versions of the bill explained that "broadly speaking," the foregoing provision "exempts from taxation trans-Atlantic and trans-Pacific travel and travel to South America, but keeps within the tax travel in or near North America and Central America and the West Indies."

$136,000 for O. D. T.

The conference report on the differing House and Senate versions of H. R. 1968, the "urgent deficiency appropriation bill," provides $136,500 to permit the Office of Defense Transportation to carry on until next June 30. This is a compromise between the House version's $130,000 and the Senate version's $143,000, the latter being the amount requested by President Truman.

Georgia Anti-Trust Case Now Set for Argument May 13

The final argument in Georgia's anti-trust suit against southern and eastern railroads has been postponed from April 1 until May 13. The argument is scheduled to be held at Washington, D. C., before the Supreme Court's special master, Lloyd K. Garrison.

I. C. C. Recommends "Adequate" Protection for Track Cars

Reporting on a January 10 accident on the Chicago, Milwaukee, St. Paul & Pacific near Cedar Falls, Wash., where a freight train collided head-on with an assembly of track motor cars and trailers, the Interstate Commerce Commission has recommended that this road "provide adequate block signal or train-order protection for the movement of track motor-cars on its line." The report, which found that the collision was caused by failure to provide adequate protection for the track motor-cars, follows an investigation conducted under the supervision of Commissioner Patterson.

Casualties of the accident were eight maintenance-of-way employees, four of whom were killed and four injured. The collision occurred on a 4 deg. curve, 2.21 miles west of Cedar Falls on that part of the Milwaukee's Coast division extending between Cle Elum, Wash., and Maple Valley—67.8 miles of single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. Track motor-cars and trailers, being insulated to prevent actuation of automatic block signals, move in the territory on the authority of an oral line-up which the train dispatcher issues by telephone to foremen. Meanwhile, however, the road's maintenance-of-way rules and instructions set out detailed requirements for the protection of motor-car movements.

The assembly involved in the collision consisted of two motorcars and eight trailers, all coupled together and en route eastward to Cedar Falls. The train, Extra 1277 West, was a westbound freight consisting of a locomotive, one car and a caboose. The investigation disclosed that a maintenance-of-way extra gang at Noble, Wash., 13.6 miles west of Cedar Falls, was instructed to proceed by the track motor-cars and trailers to Cedar Falls and thence to a point about 30 miles further east to perform track work. About 8 a. m., the train dispatcher issued by telephone, to the general foreman of the extra gang, information regarding train movements in the territory; and this line-up included information that Extra 1277 West was expected to depart from Cedar Falls about 11 a.m.

About 8:45 a.m. the conductor of an eastbound train, Extra 66 East, informed the foreman that his train was authorized by train order to proceed from Noble to Cedar Falls where it was to meet Extra 1277 West. The foreman thereupon instructed an assistant foreman to arrange for one of the members of the extra gang to ride Extra 66 East to Cedar Falls and to hold Extra 1277 West at that point until the motor-cars and trailers were into the clear on the siding there. Extra 66 East departed from Noble about 9 a.m., and the track motor-cars and trailers followed about five minutes later. But the member of the extra gang who was sent ahead to Cedar Falls took no action to hold westbound trains at that point, "because he did not understand that he was to do so." He was under the impression that on his arrival at Cedar Falls he was "to consult with another foreman for further instructions."

Accordingly Extra 1277, having fulfilled the requirements of its train order when it met Extra 66 East, departed from Cedar Falls at 10 a.m., and the collision occurred about five minutes later. The motor-cars were proceeding on the 4 deg. curve at a speed of about 8 m.p.h. when their occupants first saw the train approaching a few hundred feet distant. They had been stopped by the time the collision occurred and the freight train's speed had been "materially reduced," by an emergency brake application, from the 25 m.p.h. rate at which it was moving when the crew observed the motor cars about 200 ft. ahead. The speed limit for the train was 40 m.p.h. The track motor-cars and trailers were "demolished," and the pilot of the freight train's engine was damaged.

The report noted that train crews are not given information about line-ups issued to motor-car operators, and thus the crew of Extra 1277 West was not informed that motor cars were moving in the territory. It was raining at the time of the accident, and one of the maintenance-of-way rules and regulations regarding motor-car operations requires that "where the view is obstructed and during stormy weather . . . special precautions must be taken for protection and when necessary the movement must be protected by stop signals."

The commission investigators found the view of the point of the accident restricted from either direction to a distance of about 200 ft. The report proceeded to point out that the motor-cars were nevertheless being operated on the curve without flag protection, because the foreman in charge "thought opposing trains were being held at Cedar Falls." In leading up to its recom-

mendation that "adequate block-signal or train-order protection" be provided, the report made this comment:

"In addition to the present accident, during the past three years the commission has investigated 12 collisions between trains and track motor-cars. These accidents resulted in the death of 27 persons and the injury of 21, and were caused by the failure to provide adequate protection for the movement of track motor-cars. . . . If adequate train-order protection had been provided for the movement of the track motor-cars, this accident might have been prevented. If proper block protection had been provided, neither the track motor-cars nor the opposing train would have been permitted to enter a block occupied by an opposing movement."

Grain Movement Backlog Called to Truman's Attention

Representative Case, Republican of South Dakota, this week sent a letter to President Truman in which he asserted that "between 100 million and 200 million" bushels of grain will spoil in the central western states unless "emergency action" is taken to provide freight cars to move the grain within the next "30 to 45 days."

Contending that both the Interstate Commerce Commission and the Office of Defense Transportation have failed to recognize the seriousness of the situation, Representative Case said that the grain conditions in the central western states can be relieved only if the I. C. C. declares an emergency and orders sufficient cars available to handle the movement. He said that it will "take time" before legislation can be enacted which would permit the I. C. C. to increase rental rates on cars owned by the Western railroads and held by the Eastern roads.

According to Representative Case, the Senate subcommittee headed by Senator Reed, Republican of Kansas, succeeded in procuring cars to move wheat from Kansas "but not from the . . . corn areas farther north." He said that he felt it his "duty" to "put the matter" before President Truman in order that the latter may determine the "urgency of the situation" and take whatever emergency steps he believes are warranted.

Report on Crossing Accident That Set Fire to Train

The February 4 accident at Kingsburg, Calif., where the Southern Pacific's "San Joaquin Daylight" struck a gasoline truck trailer which exploded and set fire to the train, was caused by the truck being driven onto a grade crossing "immediately in front" of the approaching train, according to an Interstate Commerce Commission report on an investigation conducted under the supervision of Commissioner Patterson. The truck driver survived the accident, which resulted in the death of 2 passengers and 2 train-service employees and the injury of 115 passengers, 9 dining-car employees, 2 chair-car porters and 3 train-service employees.

The train, No. 51, the "San Joaquin Daylight," was a westbound first-class passenger train consisting of a locomotive and 14 all-steel cars. It was not derailed and stopped with the front of the engine 872.7 ft. west of the crossing. The engineer and fireman were the two employees killed but the brake valve was in emergency position. The front end of the engine was damaged in the collision, and the engine and first 10 cars were "badly damaged" by fire. The highway vehicle involved was a truck-trailer combination approximately 60 ft. in length, the truck weighing 21,290 lb. and the trailer 10,850 lb.; they were carrying 7,000 gal. of gasoline. The trailer was "demolished," but the truck was not damaged.

The weather was "clear" at the time of the accident, 3:08 p.m.; and the crossing was protected by a cross-buck sign and an automatic wig-wag signal, equipped with a red light and bell. Since the train was traveling about 43 m.p.h., its speed limit being 45 m.p.h., the commission calculated that the wig-wag signal would have been actuated about 30 seconds before the train reached the crossing. This signal functioned propertly in tests immediately after the accident. Moreover, "several persons in the vicinity" heard the train whistle give the required warning of approach to public crossings.

Although an eastbound freight was on a siding near the crossing, the report found that the truck driver could nevertheless have seen the approaching train when it was a "considerable distance" away before he drove onto the crossing. Also, it pointed out that California law requires motor trucks carrying inflammable liquids to stop not less than 10 ft. and not more than 50 ft. from the nearest rail of a crossing.

"None of the witnesses interrogated in the investigation continuously observed the movement of the motor truck as it approached the crossing," the report added. "It could not be determined why the driver permitted the truck to proceed upon the crossing immediately in front of the approaching train, as he was not available for questioning during the investigation" And with both enginemen dead, it could not be determined "when they first became aware that the motor truck had entered upon the crossing."

During the 30-day period preceding the day of the accident, the average daily movement of trains over the crossing was 34. During a 5-hour period beginning at 10:30 a.m. February 7, 388 automobiles and 168 trucks passed over the crossing.

Equipment and Supplies

LOCOMOTIVES

The CANADIAN NATIONAL has ordered 18 12-cylinder, 2-cycle, 1,000-hp. Diesel-electric switching locomotives from the Electro-Motive Division of the General Motors Corporation and 10 6-cylinder, 4-cycle, supercharged 1,000-hp. Diesel-electric switching locomotives from the American Locomotive Company. These orders, the road announced, are in addition to those recently placed for 20 Diesel-electric engines, 18 of which will be built by the Canadian Locomotive Company at Kingston, Ont., and 2 by the General Electric Company at Erie, Pa.

The CHESAPEAKE & OHIO has placed orders at an approximate cost of $3,560,000 for 10 steam passenger locomotives, 5 of which will have a 4-8-4 wheel arrangement and 5 a 4-6-4 wheel arrangement. The Lima Locomotive Works will build the 4-8-4's and the 4-6-4's, to be equipped with poppet valves, will be built by the Baldwin Locomotive Works. Deliveries of all 10 are scheduled for late this year. An announcement of the C. & O.'s intention to purchase these locomotives appeared in *Railway Age* of January 4.

The CHICAGO, INDIANAPOLIS & LOUISVILLE has ordered 1 3,000-hp. Diesel-electric passenger locomotive and 1 1,500-hp Diesel-electric B-type unit from the Electro-Motive Division of the General Motors Corporation and 1 1,500-hp. Diesel-electric road-switching locomotive from the American Locomotive Company. The 3,000-hp. engine will consist of two F-3 class cabs geared for a speed of 100 m. p. h. and the B-type unit, also of the F-3 class, will be used to increase the capacity of one of the road's 2-unit 3,000-hp. Diesel-electric freight locomotives to 4,500-hp. It will be geared for a 65-m. p. h. speed. The switching engine will be suitable for hauling light passenger and freight trains as well as performing switching and transfer service.

FREIGHT CARS

The CHICAGO, ROCK ISLAND & PACIFIC is inquiring for 1,000 50-ton 40½-ft. steel-sheathed semi-lightweight box cars.

The CHICAGO, INDIANAPOLIS & LOUISVILLE has ordered 100 70-ton steel hopper cars from the General American Transportation Corporation.

The CHICAGO, INDIANAPOLIS & LOUISVILLE is inquiring for 200 composite low-side gondola cars for loading building stone, 100 50-ton 40½-ft. steel box cars and 100 50-ton 50½-ft. steel box cars.

The LEHIGH & NEW ENGLAND has requested bids by March 18 for the construction of 100 70-ton steel covered hopper cars for the transportation of cement in bulk.

The CHICAGO & NORTH WESTERN is inquiring for 1,400 50-ton box cars, 400 of which are for the Chicago, St. Paul, Minneapolis & Omaha.

The ILLINOIS CENTRAL has ordered 1,000 50-ton hopper cars, 500 of which will be built by the American Car and Foundry Company at Madison, Ill., and 500 by the General American Transportation Corporation at East Chicago, Ind. The total cost of the cars, an inquiry for which was reported in the *Railway Age* for February 15, will be over $3,500,000, the road said. On March 1 work was begun on 450 hopper cars in the road's own shops at Centralia, Ill. Immediately following the construc-

tion of the hopper cars, which will be completed in May, the Illinois Central's program calls for the building of 1,000 box cars and 500 automobile cars.

SIGNALING

The Atchison, Topeka & Santa Fe has placed an order with the Union Switch & Signal Co. for signal material involved in the installation of centralized traffic control system between Newton, Kan., and North Wichita, and between South Junction, Wichita, Kan., and Mulvane, comprising 36.6 mi. of single track connecting with five mi. of double-track automatic block signal territory through Wichita. A 5-ft., Style C control machine, located at Newton, will control the territory. Besides the machine the order includes the code equipment, Style H-5 high and dwarf searchlight signals, Style M-22A electric switch movements, Style T-21 switch movements, Style SL-21A electric locks, carrier equipment, relays, rectifiers, transformers, switch circuit controllers and housings.

The New York, New Haven & Hartford has ordered equipment from the General Railway Signal Company to install an all-relay electric interlocking at New Rochelle, N. Y. This interlocking will control 33 electric switch machines, 3 electric switch locks and 54 signals, to be controlled from a desk-equipped control machine. The control panel, 2 ft. high and nearly 7 ft. long, will have 39 control levers, 7 call-on push-buttons, 2 reverse-traffic push-buttons, 2 maintainer-call push-buttons and 7 approach-annunciation control push-buttons. The panel will also include an engraved track diagram equipped with 48 track indication lamps.

Supply Trade

American Locomotive Backlog Totals $80 Million

The backlog of orders on the books of the American Locomotive Company on March 7 totaled about $80,000,000, compared with a backlog of $71,000,000 at the end of 1945, Duncan W. Fraser, chairman, said in the firm's annual report. Unfilled orders for Diesel-electric locomotives, he added, comprised 75 per cent of the locomotive orders on hand. Export orders—predominantly for steam locomotives—account for less than 10 per cent of the backlog.

The high volume of locomotive business in 1946, with a pronounced shift to Diesel-electric, is expected to continue in 1947, Mr. Fraser continued. In the domestic field, factors which produce heavy railway buying are present. Near-term prospects indicate a fair foreign business in steam locomotives which should continue as world trade conditions and international banking facilities improve.

Gross sales by American Locomotive last year amounted to $115,074,123, excluding discounts and allowances, compared with $236,045,351 in 1945. Net income was $6,808,532, compared with $6,551,521. Current assets at the end of the year totaled $58,020,820, compared with $91,015,357. Current liabilities were $26,186,200, compared with $56,942,508.

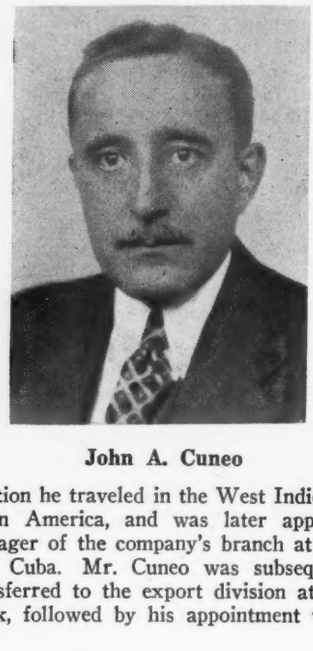
Pressed Steel Car Shows Loss for 1946 Operations

The consolidated profit and loss statement of the Pressed Steel Car Company for 1946 shows a net loss of $445,535, due primarily, Ernest Murphy, president, pointed out in a letter accompanying the firm's annual report, to recurring labor difficulties and shortage of materials. A net profit of $927,455 was reported for 1945. The backlog of orders, foreign and domestic, for freight and industrial cars and parts was approximately $45,750,000 at the end of the year. On the basis of the company's productive capacity, Mr. Murphy said, the backlog is sufficient for about nine months' operations in the McKees Rocks, Pa., and Mt. Vernon, Ill., plants.

Midvale Reports Operating Loss for 1946

An operating loss in 1946 of $1,861,284 has been reported for the Midvale Company by Francis Bradley, president of the 63.82 per cent-owned subsidiary of the Baldwin Locomotive Works. The company, he said, is entitled to an estimated refund of $3,234,658 on its 1944 income taxes which, after deduction of the operating loss, amounts to $1,373,374, the amount transferred to surplus for 1946. Billings, he added, were 63 per cent lower than in 1945. Unfilled orders on the books totaled $6,565,664 on December 31, 1946, compared with $8,982,973 at the end of the preceding year.

John A. Cuneo, whose appointment as manager of the branch office of **Fairbanks, Morse & Co.,** at Los Angeles, Cal., was reported in the *Railway Age* of March 8, joined the firm in 1929 as field engineer representing its export division. In this



John A. Cuneo

position he traveled in the West Indies and Latin America, and was later appointed manager of the company's branch at Havana, Cuba. Mr. Cuneo was subsequently transferred to the export division at New York, followed by his appointment to the scale division at Chicago. He later became manager of the scale department at St. Louis, Mo. More recently, Mr. Cuneo had been assistant manager of the export division at New York, and for the past two years had been a member of the organizing staff of Fairbanks-Morse de Mexico, at Mexico City, Mex.

J. R. Esposito has been elected a vice-president of the **Interchemical Corporation.** He is succeeded as president of the

J. R. Esposito

finishes division by **J. G. Morris,** formerly executive vice-president of the division.

Mr. Esposito began his career as a salesman in the New York office of the Ault & Wiborg Corp., subsequently being promoted to manager of the varnish depart-

J. G. Morris

ment. In 1928, Ault & Wiborg became a subsidiary of Interchemical and later was consolidated with the Murphy Varnish Company and Scriver & Quinn to form Interchemical's finishes division. Mr. Esposito was president of the division and the former Ault & Wiborg Corp. from January, 1931, until his recent election. Mr. Morris joined Ault & Wiborg in March, 1931. Before coming east in September, 1944, he was vice-president and general manager, with headquarters in the main plant, Cincinnati, Ohio.

L. F. Mathison, formerly sales engineer at Baltimore, Md., for the radio division of the **Bendix Aviation Corpora-**

tion, has been appointed manager of the division's Newark, N. J., sales office. This office will handle the sale of railroad radio communication equipment as well as yard loudspeaker systems.

Emmett A. Williams has been appointed vice-president in charge of operations for the national bearing division of the **American Brake Shoe Company** and **I. E. Cox**

Emmett A. Williams

has been appointed vice-president in charge of engineering for the same division.

Mr. Williams, works manager since April, 1942, has been with the division since 1913, working in an operating capacity. A native of Meadville, Pa., he attended Pennsylvania State college, where he studied business administration and factory management. His first job with the division was as chief clerk of the Meadville plant. Mr. Cox, formerly chief engineer, started work in the division as research engineer in January, 1935. Born in Kirkwood, Mo., he attended Washington university, St.

I. E. Cox

Louis, Mo., and Union college, Schenectady, N. Y. Between 1916 and 1918 he was an instructor of electrical engineering at Washington university.

J. F. Marquitz has been appointed assistant manager, railroad division, of **Fairbanks, Morse & Co.**, with headquarters at Chicago. Mr. Marquitz has served in various capacities for the firm during the past 40 years, including that of assistant manager of the stoker division; dealer district manager at Dallas, Tex.; and manager of the company's branch office at Seattle, Wash. He held the latter position just prior to his recent appointment.

Perry L. Francis has been appointed general manager of sales for the **Alan Wood Steel Company.**

P. H. Brennan, formerly commercial sales manager for the Frigidaire division of the **General Motors Corporation,** has been appointed sales manager of the direct factory sales department.

H. E. Williams has been appointed eastern regional sales manager for the heating controls division of the **Minneapolis-Honeywell Regulator Company,** with headquarters in New York.

Edmond J. McSweeney has been elected vice-president in charge of manufacturing of the **Hydraulic Press Manufacturing Company,** to succeed **R. J. Whiting,** resigned.

M. Edward Abram, associated with the General American Transportation Corporation, has been elected a director and general counsel of the **O. C. Duryea Corporation.**

Ralph D. Holcomb, formerly district manager of the San Francisco, Calif., territory for the **Harnischfeger Corporation,** has been appointed general sales manager of the firm.

Fred A. Maser, formerly a general foreman in the toolmaking department of **SKF Industries, Inc.,** has been appointed superintendent of the Shippensburg, Pa., plant.

Ralph Schmidt, formerly chief engineer of the Canadian Locomotive Company, has been appointed assistant to the chief engineer, development-steam products, of the Eddystone (Pa.) division of the **Baldwin Locomotive Works.**

Richard C. Newth, formerly railroad service engineer of the **Dearborn Chemical Company** in the New England territory, has been appointed chemical engineer railroad department, with headquarters at Nashville, Tenn.

George L. Cotter, assistant western manager of **Westinghouse Air Brake Company,** with headquarters at Chicago, has been promoted to western manager there, succeeding **A. K. Hohmyer,** whose death was reported in the *Railway Age* of February 22.

John H. McCartney has resigned from the brake equipment and supply division of the H. K. Porter Company. Mr. McCartney, who has established offices at 120 Cliveden avenue, Glenside, Pa., will act as a sales and service representative for a number of manufacturers selling to railroads.

P. M. Schoenberg, formerly general superintendent of construction of J. A. Ross & Co., of Chicago, has organized his own business. The new organization—**Track Maintenance Specialists,** 865 North Sangamon street, Chicago, of which Mr. Schoenberg is president— will specialize in complete track maintenance, including engineering service, tie renewal, alining, rebuilding embankments, excavating and grading, rail replacement, spot servicing, etc.

OBITUARY

Carlos Whitney Van Law, mining engineer of the Vanadium Corporation of America and vice-president of its subsidiary, the Rhodesian Vanadium Corporation, died on February 26 at his home in Pelham, N. Y. He was 73 years old.

Financial

ARGENTINE GOVERNMENT.— *Buys British-Owned Argentine Railroads.*—The Argentine government, it has been reported from London, has purchased all British-owned railroads in Argentina at a total cost of $600,000,000, including $58,000,000 for the real estate and other properties owned by the railroads. The purchase was effected as of July 1, 1946, and payment is to be made immediately after ratification of the agreement by both countries. Among the railroads involved in the transaction are the Argentine North Eastern, the Buenos Aires & Pacific, the Buenos Aires Great Southern, the Buenos Aires Western, the Central Argentine and the Entre Rios, with an aggregate mileage of approximately 16,000.

ATCHISON, TOPEKA & SANTA FE.—*Annual Report.*—Operating revenues of this road in 1946 totaled $411,604,239, compared with $528,703,149 in 1945. Operating expenses were $313,925,735, compared with $404,459,606. Net income was $39,015,177, compared with $29,414,499. Current assets at the end of the year amounted to $212,054,114, compared with $239,259,004. Current liabilities were $86,087,510, compared with $130,920,369. Funded debt was $229,131,234, compared with $230,575,500.

BOSTON & MAINE.—*Acquisition.*—This road and its lessor, the Vermont & Massachusetts, have applied to the Interstate Commerce Commission for authority to acquire for $65,000 from the New York, New Haven & Hartford a branch line from a point near Cheapside, Mass., to Turner's Falls. The line to be acquired has been operated by the B. & M. under an agreement for several years, and would replace a parallel line in the same locality which the applicants seek to abandon.

ATLANTIC & EAST CAROLINA.—*Notes.*—This road has applied to the Interstate Commerce Commission for authority to issue two collateral trust notes. One note, in the amount of $323,939, will be applied toward (1) payment of the $254,189 balance due on the secured promissory note, which, as reported in *Railway Age,* November 23, 1946, page 903, the I. C. C. authorized the applicant to issue to evidence a loan, and (2) the purchase price of a 600-hp. Diesel-electric switching locomotive, at an estimated unit cost of $69,750, from the Electro-Motive Division of the

General Motors Corporation. The note, to bear interest at the rate of 2¾ per cent and to be payable to the Wachovia Bank & Trust Co., Winston-Salem, N. C., will be paid off in 113 monthly installments, starting April 1. The note would be secured by five locomotives. Proceeds of the second note, in the amount of $40,000 and to bear interest at 4 per cent, would be applied toward the purchase of 22,000 cross-ties.

BOSTON TERMINAL. — *Reorganization.* — Division 4 of the Interstate Commerce Commission has approved an increase from $10,000 to $12,000 yearly, effective January 1 last, in the maximum annual compensation to be paid to S. Lewis Barbour, as trustee of the debtor.

CHESAPEAKE & OHIO.—*Equipment Trust Certificates.*—This road has sold, subject to Interstate Commerce Commission approval, $1,800,000 of serial equipment trust certificates to Harris Hall & Co., and associates on their bid of 99.273 for 1½ per cent obligations. The bid represents a net interest cost basis to the C. & O. of approximately 1.638 per cent. The certificates will be dated April 1, 1947, and will mature in ten equal annual installments, payable on April 1 of each year starting in 1948. (See the *Railway Age* for March 1, page 478.)

DENVER & RIO GRANDE WESTERN.—*Reorganization Plan.*—This road's reorganization managers have asked the Interstate Commerce Commission for authority to consummate the approved plan for its reorganization, as confirmed by the federal district court. The applicants seek commission authority to (1) transfer the property of the debtor and certain of its subsidiaries to the reorganized company; (2) issue securities and assume liabilities as contemplated by the reorganization plan; and (3) approve acceptance by the Reconstruction Finance Corporation of new securities in discharge of all claims of the R. F. C. against the debtor. (See *Railway Age* of November 9, 1946, page 779.)

INTERSTATE.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for $2,700,000 of Series G equipment trust certificates, the proceeds of which will be partially used for the payment of $800,000 of 2¼ per cent promissory notes, representing the balance of $1,000,000 lent to the applicant by J. P. Morgan & Co. to finance in part the purchase of 1,000 steel coal cars which were built for the Interstate by the Norfolk & Western at a total cost of $1,750,370. The balance of $750,370 for the coal cars was supplied by the applicant.

In addition, proceeds of the certificates will also reimburse its treasury for this outlay and be further applied toward the purchase price of 500 all-steel hopper cars, at an estimated unit cost of $3,000, from the Virginia Bridge Company. The certificates will be sold on the basis of competitive bids.

PERE MARQUETTE.—*Promissory Notes.*—This road has applied to the Interstate Commerce Commission for authority to issue $628,000 in promissory notes to further evidence the indebtedness it plans to assume under a conditional sales agreement with the Electro-Motive Division of the General Motors Corporation, from which the applicant intends to purchase 4 2,000-hp. Diesel-electric passenger locomotives at an estimated unit cost of $201,069. The notes will be sold on the basis of competitive bidding.

UNION PACIFIC. — *Preliminary Annual Report.*—Operating revenues of this road last year amounted to $361,395,534, compared with $491,877,872 in 1945. Operating expenses totaled $286,809,739, compared with $362,286,584. Net income was $34,211,738, compared with $34,650,279. Current assets at the end of the year were $279,222,204, compared with $375,060,450. Current liabilities were $79,919,994, compared with $136,427,355. Funded debt was $319,891,869, compared with $366,315,157.

Average Prices Stocks and Bonds

	Mar. 11	Last week	Last year
Average price of 20 representative railway stocks..	48.60	50.38	62.06
Average price of 20 representative railway bonds..	91.08	91.49	102.35

Dividends Declared

Akron, Canton & Youngstown.—common (init.), 50¢, payable April 1 to holders of record March 15; 5% preferred, $2.50, semi-annually, payable April 1 to holders of record March 15; 5% preferred, $2.50, semi-annually, payable October 1 to holders of record September 15.

New London Northern.—$1.75, quarterly, payable April 1 to holders of record March 15.

Norwich & Worcester. — 8% preferred, $2.00, quarterly, payable April 1 to holders of record March 15.

Sharon.—$1.00, payable April 1 to holders of record March 22.

Spokane International. — $2.50, annually, payable April 1 to holders of record March 22.

United New Jersey.—$2.50, quarterly, payable April 10 to holders of record March 20.

Western Pacific.—common, 75¢, quarterly, payable May 15 to holders of record May 1; common, 75¢, quarterly, payable August 15 to holders of record August 1; common, 75¢, quarterly, payable November 15 to holders of record November 1; common, 75¢, quarterly, payable February 15 to holders of record February 1; 5% preferred A, $1.25, quarterly, payable May 15 to holders of record May 1; 5% preferred A, $1.25, quarterly, payable August 15 to holders of record August 1; 5% preferred A, $1.25, quarterly, payable November 15 to holders of record November 1; 5% preferred A, $1.25, quarterly, payable February 15 to holders of record February 1.

Construction

HARTFORD & SOUTHWESTERN.—Division 4 of the Interstate Commerce Commission has dismissed for want of prosecution this road's application in the Finance Docket No. 14853 proceeding which sought commission authority to construct a 10-mile line from a point near Beaverdam, Ky., southwesterly to a point about 2 miles south of a point where the Illinois Central crosses the Green river in Ohio county, Ky. (See *Railway Age,* March 10, 1945, page 470.)

SACRAMENTO NORTHERN.—Division 4 of the Interstate Commerce Commission has authorized this road to construct in Chico, Calif., a 590-ft. line from a connection with its main line to a connection with the tracks of the Diamond Match Company, over which the Southern Pacific has operating rights, in order to provide interchange facilities between the applicant and the S. P. in lieu of the ones which the applicant was permitted to abandon in 1946.

Abandonments

BOSTON & MAINE.—This road and its lessor, the Vermont & Massachusetts, have applied to the Interstate Commerce Commission for authority to abandon, including operation by the B. & M., a portion of the so-called Turner's Falls branch, extending approximately 1.45 miles from a point near Greenfield, Mass., to a point near Montague. The abandonment is sought due to the condition of a bridge damaged by floods, and an alternate line is available.

GREEN BAY & WESTERN.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon that portion of a branch line extending approximately 9.7 miles from Scandinavia, Wis., to the end of the line at Waupaca. The commission, which approved the transaction subject to the usual employee-protection conditions, found that the transportation needs of Waupaca can be "satisfied adequately" through the facilities of the Minneapolis, St. Paul & Sault Ste. Marie and the "many" motor carriers in the area.

Railway Officers

EXECUTIVE

Samuel A. Boyer, whose appointment as assistant vice-president in charge of public relations, advertising and industrial development of the New York, New Haven & Hartford, was reported in the *Railway Age* of March 8, was born at Farmington, Iowa, on June 12, 1900. Mr. Boyer received his A.B. degree from Kansas University and his M.B.A. degree from Harvard School of Business Administra-

Samuel A. Boyer

tion. Entering railroad service on February 1, 1935, as publicity manager of the New Haven, he became advertising manager on September 1, 1935. Mr. Boyer was appointed manager of advertising and publicity on September 1, 1939, and on March 1, 1941, he became manager of public relations. On May 15, 1943, he was promoted to assistant to president, becoming also director of public relations on October 1, 1944.

Harry W. Dorigan, whose appointment as assistant vice-president in charge of real estate and real estate taxes of the New York, New Haven & Hartford was reported in the *Railway Age* of March 8, was born at Taunton, Mass., on November 23, 1895. Mr. Dorigan entered railroad service in 1914 with the New Haven, serving successively until 1924 as clerk in the office of the auditor of disbursements at New Haven, Conn., and in miscellaneous positions in the accounting and operating departments at various points. From 1924 to 1930 he was special accountant at New Haven, becoming assistant to comptroller there in the latter year. In 1933 Mr.

Harry W. Dorigan

Dorigan was appointed assistant to vice-president at New Haven and a year later he became assistant to the president there. He was appointed executive assistant to trustees at New Haven in 1935, which position he held at the time of his recent appointment as assistant vice-president. During World War I, Mr. Dorigan saw active service overseas as second lieutenant, United States Army, receiving the Order of the Purple Heart.

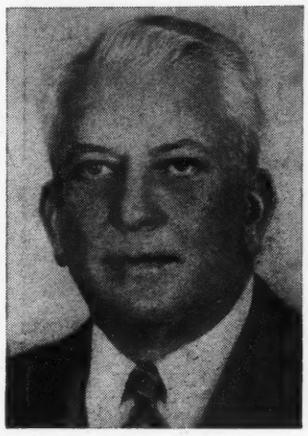
Harry L. Jones has been elected vice-president of the Mississippi Central, with headquarters at Middleville, N. J.

Herbert H. Harwood has been appointed executive assistant of the New York Central system, with headquarters at Washington, D. C.

M. M. Cronk, vice-president and general manager of the Pere Marquette, at Detroit, Mich., has been elected also vice-president of the Manistee & Northeastern. He succeeds **J. Gordon Johnson,** whose death was reported in the *Railway Age* of January 11.

FINANCIAL, LEGAL AND ACCOUNTING

W. S. Allison, whose appointment as general claim agent of the Southern at Washington, D. C., was reported in the *Railway Age* of February 15, was born on January 9, 1890, at Greenville, S. C. He



W. S. Allison

entered the service of the Southern as a stenographer at Greenville in December, 1911, and after serving in various clerical and secretarial positions there, he was promoted to chief clerk to the superintendent. In July, 1917, he was appointed claim agent at Charlottesville, Va., serving subsequently in a similar capacity at Washington and at Richmond, Va. He was promoted to assistant chief claim agent at Washington in July, 1942, the position he held until his recent appointment as general claim agent.

Leo V. Sullivan, whose appointment as comptroller of the New York, New Haven & Hartford was reported in the *Railway Age* of March 8, was born at Stony Creek, Conn., on June 9, 1894. Mr. Sullivan entered railroad service in August, 1914, as clerk in the office of the superintendent of car service of the New Haven, serving in that capacity until April, 1916, when he

Leo V. Sullivan

became bookkeeper for the Norcross Construction Company. From June, 1917, to May, 1919, he was in the United States Army. Returning to the New Haven in August, 1919, he became clerk-bookkeeper in the office of the auditor of disbursements. From May, 1925, to November, 1934, he was accountant and from the latter date until October, 1941, he served as statistician, then becoming special assistant to comptroller. Mr. Sullivan was appointed general auditor on December 1, 1943, which position he was holding at the time of his recent promotion to comptroller.

V. W. Rosenow, auditor of the Manistee & Northeastern, with headquarters at Manistee, Mich., has been advanced to general auditor and assistant secretary.

Ralph E. Weeks has been appointed secretary and treasurer of the Mississippi Central at Scranton, Pa. **M. Claire Barrett** has been named assistant secretary and assistant treasurer at Scranton.

A. Sotomayor and **R. Villar** have been appointed treasurer and auditor of disbursements, respectively, of the National of Mexico, with headquarters at Mexico City, Mex. Mr. Sotomayor succeeds **J. G. Estrada,** who has been appointed general superintendent, express department.

W. R. King, whose appointment as general claim agent of the southern at Washington, D. C., was reported in the *Railway Age* of February 15, was born at Blacksburg, S. C., on October 26, 1903. He was employed by the Southern as secretary to the superintendent at Columbia, S. C., in July, 1925, serving later as a clerk in the traffic department at Bristol, Va. In August, 1933, he was promoted to claim agent at Bristol and subsequently served in a similar capacity at Charlotte, N. C. He was promoted to assistant chief claim agent at Greensboro, N. C., in May, 1942, and went to Washington as assistant to chief claim agent in September, 1944.

TRAFFIC

Charles W. Banks has been appointed general live stock agent of the Alton, with headquarters at Kansas City, Mo.

J. G. Metz has been appointed manager bureau of conventions and tours of the Chesapeake & Ohio at Richmond, Va.

W. E. Karcher, Jr., has been appointed assistant general freight agent of the Gulf, Mobile & Ohio, with headquarters at Mobile, Ala.

J. A. Flanagan has been appointed general agent of the New York, Chicago & St. Louis, with headquarters at Omaha, Neb.

Floyd D. Wentz will become agricultural agent of the Union Pacific, effective March 16, for Colorado and Wyoming, with headquarters at Denver, Colo.

Ricardo Noriega has been appointed Mexican traffic manager of the Missouri-Kansas-Texas, with headquarters at Mexico City, Mex. The position of Mexican traffic representative has been abolished.

W. A. Reese, assistant general freight agent of the Seaboard Air Line, with headquarters at Tampa, Fla., has been promoted to assistant freight traffic manager at Birmingham, Ala., succeeding **R. W.**

Morris, who has retired after nearly 52 years of service with the road. **A. M. Baker** succeeds Mr. Reese at Tampa. **Robert B. Coleman** has been promoted to general agent, with headquarters at Birmingham.

R. S. Vincent, general freight and passenger agent of the Manistee & Northeastern, with headquarters at Manistee, Mich., has been promoted to traffic manager.

George R. Fairhead, general freight traffic manager of the Canadian National, with headquarters at Montreal, Que., has retired under the pension rules of the company.

William L. Bailes, whose promotion to regional freight traffic manager—sales, of the Chesapeake & Ohio, with headquarters at Chicago, was reported in the *Railway Age* of February 15, was born on December 2, 1899, at Richmond, Va., and received his education in the public schools there. He entered railway service in 1916 with the C. & O., serving in various clerical capacities until 1925, except for service in the

William L. Bailes

Navy during 1918 and 1919. From 1925 to 1938 Mr. Bailes held positions as traveling freight agent at Birmingham, Ala., and later, Cincinnati, Ohio; commercial agent at Atlanta, Ga.; and general agent, successively, at St. Louis, Mo., and Pittsburgh, Pa. In 1938 he was advanced to division freight agent at Richmond, and in 1942 was promoted to assistant to general freight traffic manager there. Mr. Bailes was further advanced to assistant freight traffic manager at Chicago in 1945, the position he held at the time of his new appointment.

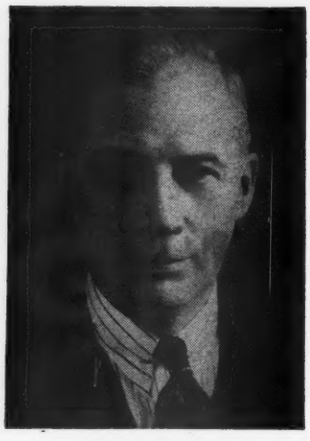
Henry J. Nevin, vice-chairman of the Canadian Passenger Association, has been appointed general passenger agent of the Canadian National, with headquarters at Montreal, Que., having jurisdiction over Central region territory from Brockville, Ont., Smith's Falls and Ottawa, east to Riviere du Loup, Que., and Monk, also Grand Trunk lines Norton, Vt., to Portland, Me. Mr. Nevin succeeds **O. A. Trudeau,** whose promotion to assistant passenger traffic manager is noted elsewhere in these columns. Mr. Nevin was born at Montreal in October, 1895, and began his railway career with the Canadian National in July, 1920, with the sleeping and dining car department there. In October of that year he transferred to the office of the general passenger agent. His services were loaned to the Canadian Passenger Associa-

Henry J. Nevin

tion from October, 1934, to May, 1936, and on his return to the railway he was appointed traveling passenger agent. In January, 1945, he was appointed vice-chairman of the Canadian Passenger Association.

E. F. McWilliams, general agent, passenger department, of the Missouri-Kansas-Texas, with headquarters at Chicago, has been appointed to the newly-created position of assistant general passenger agent there. His former position has been abolished.

O. A. Trudeau, general passenger agent of the Central region of the Canadian National, with headquarters at Montreal, Que., has been appointed assistant passenger traffic manager of the system, with the same headquarters, succeeding **W. E. Norton,** whose death was reported in the *Railway Age* of February 22. Mr. Trudeau was born at Waterloo, Que., in October, 1888, and educated at St. Bernadin College and



O. A. Trudeau

Waterloo Academy. He joined the Grand Trunk in 1906 as a clerk in the passenger audit department at Montreal. He became advertising clerk in the district passenger agent's office in December, 1910, and was subsequently promoted to excursion clerk, chief clerk, special representative and, in March, 1935, to district passenger agent. He became general passenger agent of the Central region in October, 1942, which position he held until his recent promotion.

C. M. Byers has been appointed assistant general freight agent of the Chesapeake & Ohio, with headquarters at Columbus, Ohio. **C. W. Brandenburg** has been appointed general agent at St. Louis, Mo.

Rodger M. Spahr has been appointed assistant general freight agent of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal. **J. G. Murphy** has been appointed district freight agent at Detroit, Mich.

Ross E. Chappell, whose promotion to passenger traffic manager of the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., was reported in the *Railway Age* of February 22, was born on August 4, 1902, at Newkirk, Okla. He entered railway service with the Santa Fe in 1920 as a ticket clerk in his home town, and subsequently held various positions with the

Ross E. Chappell

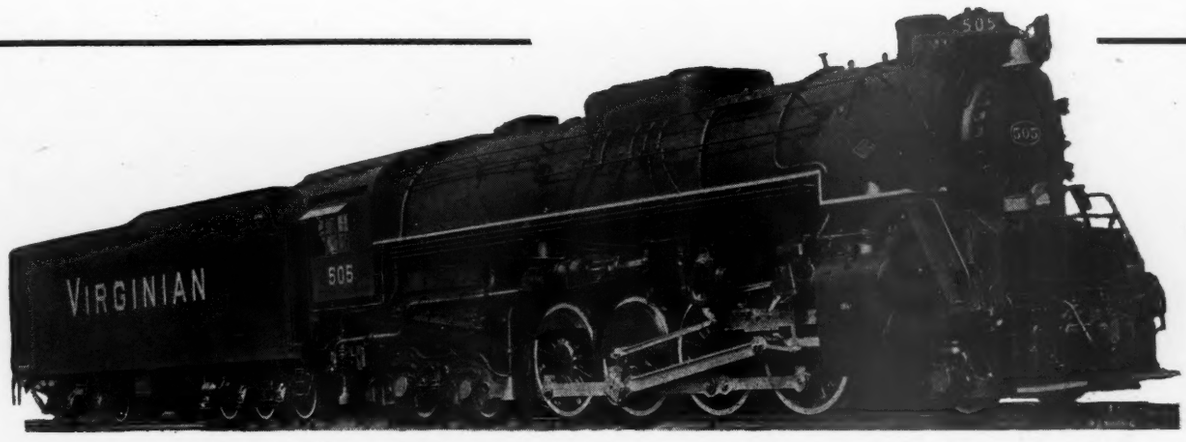
road at Tulsa, Okla., and Oklahoma City. In 1938 he was appointed division passenger agent at Topeka, where he remained until 1941, when he was transferred to Denver, Colo. Mr. Chappell later served as assistant general passenger agent at Los Angeles, Cal., and in May, 1946, was promoted to general passenger agent there. He was serving in that capacity at the time of his new appointment.

S. O. Belcher, general freight agent of the Midland Valley, the Kansas, Oklahoma & Gulf and the Oklahoma City-Ada-Atoka, with headquarters at Detroit, Mich., has been transferred to Chicago. The roads' traffic department office at Detroit has been discontinued.

Harry F. Doyle, whose appointment as assistant freight traffic manager of the Delaware, Lackawanna & Western at New York was reported in the *Railway Age* of January 11, entered the service of the Lackawanna in March, 1920, as chief clerk of the commercial agency at Cleveland, Ohio. Mr. Doyle served as general agent

News Department continued on next left-hand page

It takes more than *SPEED*–



Coupled with today's need for speed is the problem of moving a large volume of traffic. The Virginian has realized this and is meeting these demands with a fleet of modern Lima-built 2-8-4's capable of moving freight at speeds closely approximating passenger schedules.

LIMA LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

at Cincinnati, Ohio, commercial agent at Albany, N. Y., and traffic representative at Cleveland, successively, before going to New York in 1944 as general agent, which position he held at the time of his recent promotion.

Theodore M. Caiazza, assistant general freight agent of the Atchison, Topeka & Santa Fe, with headquarters at San Francisco, Cal., has been promoted to freight traffic manager at Chicago, succeeding **J. P. Hackler,** who has resigned to become a member of the Western Classification Committee.

S. Shapiro, whose appointment as general freight agent (rates) of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in the *Railway Age* of January 11, entered the service of the Nickel Plate in January, 1918, in the general freight department at Cleveland. Advancing through various clerical positions, Mr. Shapiro became division freight agent at St. Louis, Mo., on January 1, 1938. He was promoted to assistant general freight agent (rates) at Cleveland on February 1, 1946, which position he held until his appointment as general freight agent (rates).

Calvin Beuford Kincaid, whose appointment as general passenger agent—sales of the Chesapeake & Ohio at Richmond, Va., was reported in the *Railway Age* of February 8, was born on November 16, 1898, at Fayettesville, Tenn. Mr. Kincaid entered railroad service on December 10, 1918, with the Washington Terminal. He then served successively as assistant city ticket agent, city ticket agent and city passenger agent at Washington, D. C.; general eastern passenger agent at New York; district passenger agent at Philadelphia, Pa.; and assistant general passenger agent at Cincinnati, Ohio, and Washington, for the Chesapeake & Ohio.

John C. Kimes, whose retirement as assistant freight traffic manager of the Baltimore & Ohio, with headquarters at Chicago, was reported in the *Railway Age* of March 1, was born at Monongahela City, Pa., and received his education in the public schools at Braddock, Pa. Mr. Kimes entered railway service with the B. & O. at Rankin, Pa., serving successively as messenger, yard clerk, bill clerk, rate clerk, cashier and agent. In 1906 he was appointed soliciting freight agent at Pittsburgh, Pa., and in 1910 he became commercial freight agent. He was appointed division freight agent in 1916, and during 1918 and 1919 he served in the Ordnance Department of the Army. Following his release from military service, Mr. Kimes became division freight agent at Cincinnati, Ohio, and later, assistant general freight agent at Cleveland, Ohio. In 1928 he was advanced to general freight agent at Chicago, which position he held until 1937, when he was promoted to assistant freight traffic manager. He was serving in the latter capacity at the time of his retirement.

Elmer F. Kessler, whose promotion to assistant freight traffic manager-sales of the Chesapeake & Ohio was reported in the *Railway Age* of February 15, was born on January 4, 1891, at Cincinnati, Ohio. He entered railway service there in 1905 as a messenger boy with the Pennsylvania, and subsequently held positions as assistant tariff compiler, secretary to division freight agent and rate clerk. He went to Pittsburgh, Pa., in 1917, as assistant chief clerk to third vice-president, and with the beginning of federal control the following year, was appointed chief traffic clerk. Mr. Kessler joined the Cleveland, Cincinnati, Chicago & St. Louis in 1920, as secretary to vice-president at Cincinnati. In 1921 he became associated with the C. & O. in a similar position, which he held successively at Cincinnati, and Richmond, Va. He returned to Cincinnati in 1929 as assistant foreign freight agent, and was advanced to assistant to general freight agent in 1932 and to assistant to freight traffic manager in 1942. Mr. Kessler was serving in the latter capacity at the time of his new appointment.

Roy B. Kinkaid, general freight agent of the Baltimore & Ohio, with headquarters at Chicago, has been promoted to assistant freight traffic manager there, succeeding **John C. Kimes,** whose retirement was reported in the *Railway Age* of March 1. Succeeding Mr. Kinkaid is **Carl H. Groninger,** assistant general freight agent at Chicago, who in turn is succeeded by **Omar K. Sanders,** division freight agent at Toledo, Ohio. **John H. Kuntz,** assistant general freight agent, has been promoted to general freight agent. **E. C. Schlag,** district freight agent at Kansas City, Mo., has been appointed division freight agent at Chillicothe, Ohio. He is succeeded by **Robert C. Loomis,** traveling freight agent at Kansas City. **David Griffiths** has been advanced to district freight agent at Chicago, and **Francis A. Frawley,** traveling freight agent at St. Louis, Mo., has been appointed district freight agent there. He succeeds **Paul K. Groninger,** who has been appointed division freight agent at Indianapolis, Ind.

William H. Francis, whose retirement as general freight agent of the Southern Pacific, with headquarters at El Paso, Tex., was reported in the *Railway Age* of March 8, was born on December 30, 1891, at Huasco, Chile. He entered railway service in 1906, and was employed successively as office boy, file clerk, rate clerk and chief rate clerk on the S. P. and the Arizona Eastern (now part of S. P.), at Tucson, Ariz. In 1919 he was appointed assistant to general freight and passenger agent of the S. P. of Mexico, at Guaymas, Sonora, Mex., and the following year he became general freight and passenger agent of the Cuba, at Camaguey, Cuba. From 1925 to 1929 he served successively as tariff inspector, traveling freight and passenger agent and office manager in the traffic department of the S. P. at El Paso and Los Angeles, Cal. He was appointed assistant general freight agent at El Paso in 1930, and in 1936 he was transferred to Portland, Ore. Mr. Francis had been general freight agent at El Paso since 1940 at the time of his retirement.

OPERATING

L. A. Kane, has been appointed superintendent of the Utah, with headquarters at Martin, Utah, succeeding **R. J. Vaughan,** who has retired.

Ray Hill has been appointed assistant to general manager of the Chicago & Eastern Illinois, with headquarters at Chicago. **A. Christman** has been appointed assistant superintendent at Evansville, Ind.

E. F. Olsen, superintendent and assistant secretary of the Manistee & Northeastern, with headquarters at Manistee, Mich., has been advanced to general superintendent.

F. A. Brazell has been appointed trainmaster of the Hudson and Mohawk divisions of the New York Central. **E. Hoff** has been appointed trainmaster of the Electric, Harlem and Putnam divisions.

T. Vance Parker, whose promotion to superintendent of terminals, Southern and Illinois Central systems, at Meridian, Miss., was reported in the *Railway Age* of February 8, was born on December 15, 1900, at Roebuck, S. C. He entered railway service in 1923 with the Southern, serving until 1926 as yard and desk clerk at

T. Vance Parker

Spartanburg, S. C. He subsequently held positions there as yard brakeman, yard conductor and yardmaster. In 1940 he was appointed terminal trainmaster of the Southern, at Charlotte, N. C., and became trainmaster at Winston-Salem, N. C., in 1944. Mr. Parker was serving in the latter capacity at the time of his new appointment.

E. A. Hamerski has been appointed acting division superintendent of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Enderlin, N. D., relieving **B. G. Cross,** superintendent there, who has been granted a leave of absence.

O. O. Mills, manager of the Fruit Growers Express Company, the Western Fruit Express Company and the Burlington Refrigerator Express Company, with headquarters at Washington, D. C., has been appointed general manager of those companies. **D. R. Elmore,** vice-manager of these companies, has been appointed as-

News Department continued on next left-hand page

The first streamlined locomotive of five being converted by the Chesapeake & Ohio

Equipped with

THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION

and

THE BOOSTER*

* *Reg Trade Mark U. S. Pat. Off*

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

sistant general manager, with jurisdiction over mechanical and purchases and stores departments. The positions of manager and vice-manager have been abolished.

L. C. Reynolds, assistant division superintendent of the Chicago & North Western, with headquarters at Casper, Wyo., has been promoted to superintendent of the road's Nebraska division, at Norfolk, Neb. **G. C. Stuart,** assistant division superintendent at Adams, Wis., has been advanced to superintendent at Chadron, Neb.

Sidney L. Altschuler, traffic representative of the Missouri-Kansas-Texas, with headquarters at Kansas City, Mo., will be advanced to director of dining service and commissary departments on March 16, with headquarters at San Antonio, Tex. Mr. Altschuler will succeed to the duties of **Tom T. Turner,** superintendent of dining service, who will retire on March 15

Mr. Turner was born at St. Louis, Mo., receiving his education in the public schools and at Christian Brothers College there, and at St. Mary's College in St. Mary's Kan. He began his railway career with the Chicago, Burlington & Quincy in 1903, and joined the Katy in 1920. He has served as superintendent of dining service since 1925.

ENGINEERING & SIGNALING

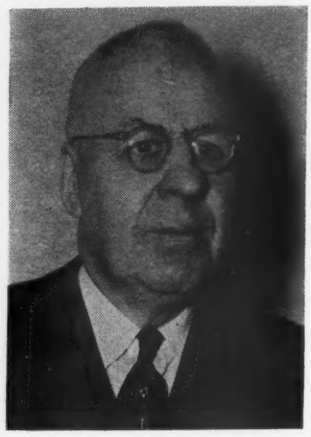
S. H. Shepley, whose promotion to assistant chief engineer of the Elgin, Joliet & Eastern, with headquarters at Joliet, Ill., was reported in the *Railway Age* of

S. H. Shepley

February 8, was born at Minneapolis, Minn., on March 31, 1906, and received his higher technical training at the University of Minnesota. After a year in the office of the bridge engineer of the Northern Pacific, at St. Paul, Minn., he entered the service of the Elgin, Joliet & Eastern in 1930 as a draftsman. From 1932 to 1937 he served with the State Highway Department of Minnesota as material inspector, rodman, field and office draftsman, and instrument man on highway construction and location survey. On February 1, 1937, he returned to the E. J. & E. as a draftsman, and served in that capacity until September 16, 1939, when he was appointed supervisor of track. On June 1, 1946, he was advanced to division engineer, with headquarters at Gary, Ind., the position he held at the time of his recent promotion.

PURCHASES AND STORES

F. G. Bannister, whose promotion to manager of stores of the Canadian Pacific, with headquarters at Montreal, Que., was reported in the *Railway Age* of March 1, became associated with the stores department of the C. P. in 1904. He served successively as district storekeeper at Van-



F. G. Bannister

couver, B. C., Calgary, Alta., and Winnipeg, Man., and was for eight years assistant general storekeeper, Western Lines, with headquarters at Winnipeg. In 1940 he was promoted to general storekeeper there, holding that position until his new appointment.

MECHANICAL

Elmer A. Kuhn, whose promotion to superintendent of motive power of the Pere Marquette, with headquarters at Grand Rapids, Mich., was reported in the *Railway Age* of February 22, was born on May 2, 1897, and received a degree in railway mechanical engineering at the University of Pittsburgh in 1921. He entered railway service in that year with the New York, Chicago & St. Louis, serving as

Elmer A. Kuhn

machinist and special engineer until his appointment in 1929 as assistant engineer motive power, advisory mechanical committee, of the Chesapeake & Ohio, the Nickel Plate and the Pere Marquette. In 1932 he was appointed master mechanic of the P. M. at St. Thomas, Ont., and in 1937 he was transferred to Saginaw, Mich., where he was located at the time of his new appointment.

W. G. Palmer, superintendent of the car shop of the Canadian National, with headquarters at London, Ont., has been appointed assistant general superintendent car equipment of the Central region at Toronto, Ont., succeeding **C. F. Weaver,** who has retired after many years of service. **G. McCready,** general foreman, car shop, at Montreal, has been appointed superintendent, car shop, at London, succeeding Mr. Palmer.

Mr. Weaver was born at London, England, and entered railroad service in 1919 as a carpenter at the Montreal, Que., car shop of the Canadian National, serving subsequently as assistant foreman and superintendent of car shop until 1928. In that year Mr. Weaver was appointed superintendent of car equipment of the Montreal district and in 1937 he became superintendent of the car shop at London. He was appointed assistant general superintendent car equipment at Toronto in March, 1943, the position he held until his retirement.

OBITUARY

Allan S. Perry, chief chemist and supervisor of laboratories of the Chesapeake & Ohio, at Huntington, W. Va., died in that city recently.

H. R. Steinfeld, general agent of the Terminal Railroad Association of St. Louis, with headquarters at Chicago, died in that city on March 4.

Richard R. Metheany, who retired in 1946 as assistant to the chief engineer, maintenance of way, Eastern region of the Pennsylvania, with headquarters at Philadelphia, Pa., died in January 14.

R. J. White, whose promotion to commissary purchasing agent of the Canadian Pacific, at Montreal, Que., was reported in the *Railway Age* of January 18, died recently in Calgary, Alta., on the eve of his departure to assume his new position.

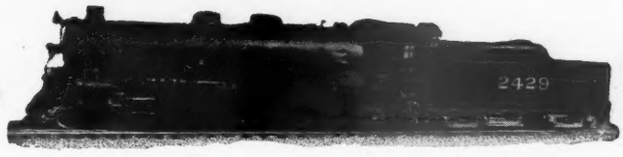
George F. Stanton, assistant general passenger agent of the New York Central system, with headquarters at New York, died on March 6 of pneumonia at Mt. Vernon (N. Y.) hospital, where he was taken following a heart attack. Mr. Stanton was 52 years old and had been with the New York Central for 36 years.

Edward P. Vernia, who retired in January, 1946, as vice-president in charge of traffic of the Chicago, Indianapolis & Louisville, died in Chicago on March 5, following an illness of several months. Mr. Vernia was born at New Albany, Ind., on July 21, 1875, and entered railroad service on September 1, 1892, as a bill clerk on the Monon at Louisville, Ky. He served in various minor positions until 1914, when he was appointed district freight agent at Bedford, Ind. In 1919 Mr. Vernia was advanced to district freight and passenger agent at Louisville, and two years later was promoted to general freight agent at Chicago. In 1923 he was promoted to vice-president in charge of traffic, with the same headquarters, the position he held at the time of his retirement.

Table of operating revenues and expenses appears on the next left-hand page.

To make any Existing Locomotive

A better dollar-earner



● The performance of any existing coal-burning or oil-burning steam locomotive can be profitably improved by the installation of Security Circulators, suitably proportioned in accordance with the size and type of boiler.

Security Circulators definitely improve the steaming qualities of a locomotive and increase its availability.

Over 6800 Security Circulators have been ordered since the first installations were made.

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 129 monthly reports of revenues and expenses representing 133 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF DECEMBER, 1946 AND 1945

Item	United States		Eastern District		Southern District		Western District	
	1946	1945	1946	1945	1946	1945	1946	1945
Miles of road operated at close of month	227,200	227,857	55,797	55,976	43,263	43,280	128,140	128,601
Revenues:								
Freight	$493,530,889	$401,245,239	$188,935,777	$154,645,296	$98,476,141	$84,824,012	$206,118,971	$161,775,931
Passenger	92,715,523	161,133,501	45,210,442	68,349,346	15,454,221	25,881,238	32,050,860	66,902,917
Mail	13,647,358	13,375,613	4,735,615	4,556,592	2,356,721	2,294,987	6,555,022	6,524,034
Express	9,102,554	8,046,440	1,952,409	933,091	1,526,186	958,727	5,623,959	6,154,622
All other operating revenues	28,244,986	29,879,965	12,979,107	12,740,584	3,790,103	4,388,131	11,475,776	12,751,250
Railway operating revenues	637,241,310	613,680,758	253,813,350	241,224,909	121,603,372	118,347,095	261,824,588	254,108,754
Expenses:								
Maintenance of way and structures	91,750,274	185,718,113	35,824,693	69,026,242	17,037,908	38,930,191	38,887,673	77,761,680
Depreciation	10,398,042	10,986,728	4,571,805	4,400,921	1,738,596	1,943,997	4,087,641	4,641,810
Retirements	3,975,312	13,383,379	1,632,997	4,587,925	1,072,631	1,454,424	1,269,684	7,341,030
Deferred maintenance	*390,447	6,882,360	*85,220	554,131	*2,518	4,749,700	*302,709	1,578,529
Amortization of defense projects	*606,814	57,348,052	1,065	23,419,274	20,135	13,327,301	*628,014	20,601,477
Equalization	*2,815,308	*7,841,062	*499,251	*2,466,341	*1,752,532	*2,998,266	*563,525	*2,376,455
All other	81,189,489	104,958,656	30,203,297	38,530,332	15,961,596	20,453,035	35,024,596	45,975,289
Maintenance of equipment	124,449,486	465,977,867	53,721,254	212,938,278	22,641,847	105,423,752	48,086,385	147,615,837
Depreciation	18,434,280	17,383,499	7,437,812	6,474,551	3,828,234	3,984,302	7,168,234	6,924,646
Retirements	*12,580	*28,008	*2,083	4,909	*2,950	*10,409	*7,547	*22,508
Deferred maintenance and major repairs	*363,089	3,378,423	*29,618	211,262	*72,324	2,323,460	*261,147	843,701
Amortization of defense projects	1,255,620	339,968,451	504,120	162,164,160	206,343	79,929,980	545,157	97,874,311
Equalization	*425,117	*60,584	4,195	29,418	*399,262	889	*30,050	*90,891
All other	105,560,372	105,336,086	45,806,828	44,053,978	19,081,806	19,195,530	40,671,738	42,086,578
Traffic	14,189,698	13,609,025	5,166,353	4,901,825	2,671,789	2,379,796	6,351,556	6,327,404
Transportation—Rail line	287,704,616	269,559,734	126,215,338	115,043,106	49,228,099	44,449,506	112,261,179	110,067,122
Transportation—Water line								
Miscellaneous operations	11,212,184	11,370,395	4,152,876	4,306,878	1,535,081	1,586,641	5,524,227	5,476,876
General	20,521,309	20,174,459	8,536,284	8,479,006	3,988,722	4,190,750	7,996,303	7,504,703
Railway operating expenses	549,827,567	966,409,593	233,616,798	414,695,335	97,103,446	196,960,636	219,107,323	354,753,622
Net revenue from railway operations	87,413,743	*352,728,835	20,196,552	*173,470,426	24,499,926	*78,613,541	42,717,265	*100,644,868
Railway tax accruals	*28,428,231	*323,590,761	*23,282,114	*139,156,469	384,140	*72,033,727	*5,530,257	*112,400,565
Pay-roll taxes	21,141,827	18,692,110	9,129,616	7,783,804	3,714,669	3,153,222	8,297,542	7,755,084
Federal income taxes	*69,140,498	*361,701,323	*35,704,580	*154,488,459	*7,185,733	*78,927,747	*26,250,185	*128,285,117
All other taxes	19,570,440	19,418,452	3,292,850	7,548,186	3,855,204	3,740,798	12,422,386	8,129,468
Railway operating income	115,841,974	*29,138,074	43,478,666	*34,313,957	24,115,786	*6,579,814	48,247,522	11,755,697
Equipment rents—Dr. balance	9,957,182	8,383,414	5,760,265	3,817,200	*548,946	*1,042,690	4,745,863	5,608,904
Joint facility rent—Dr. balance	2,890,283	4,525,656	1,418,527	2,148,852	343,017	602,507	1,128,739	1,774,297
Net railway operating income	102,994,509	*42,047,144	36,299,874	*40,280,009	24,321,715	*6,139,631	42,372,920	4,372,496
Ratio of expenses to revenues (per cent)	86.3	157.5	92.0	171.9	79.9	166.4	83.7	139.6

FOR TWELVE MONTHS ENDED WITH DECEMBER, 1946 AND 1945

Item	United States		Eastern District		Southern District		Western District	
	1946	1945	1946	1945	1946	1945	1946	1945
Miles of road operated at close of month	227,620	228,234	55,894	56,002	43,277	43,328	128,449	128,904
Revenues:								
Freight	$5,786,251,712	$6,530,167,230	$2,228,493,247	$2,404,531,608	$1,147,733,946	$1,229,031,810	$2,410,024,519	$2,896,603,812
Passenger	1,259,168,736	1,716,378,360	578,938,080	704,240,747	203,990,287	314,384,218	476,240,369	697,753,395
Mail	129,000,744	129,571,450	45,654,549	44,333,085	22,261,995	22,346,729	61,084,200	62,891,636
Express	92,730,354	143,968,565	9,349,584	39,227,545	14,783,814	20,637,906	68,596,956	84,103,114
All other operating revenues	360,161,848	378,523,118	166,377,303	163,568,747	46,782,384	52,983,469	147,002,161	161,970,902
Railway operating revenues	†7,627,313,394	†8,898,608,723	3,028,812,763	3,355,901,732	1,435,552,426	1,639,384,132	3,162,948,205	3,903,322,859
Expenses:								
Maintenance of way and structures	1,150,232,630	1,410,919,927	426,532,075	501,057,393	231,297,057	256,712,268	492,403,498	653,150,266
Depreciation	120,737,565	118,819,363	52,387,886	51,533,238	19,559,464	19,219,346	48,790,215	48,066,779
Retirements	14,554,344	27,636,301	4,412,772	7,397,944	2,402,592	3,283,396	7,738,980	16,954,961
Deferred maintenance	*5,410,853	3,531,160	*1,448,182	52,586	280,215	4,749,700	*4,242,886	*1,271,126
Amortization of defense projects	*209,123	115,716,485	44,887	31,300,300	157,298	21,829,324	*411,308	62,586,861
Equalization	4,077						4,077	
All other	1,020,556,620	1,145,216,618	371,134,712	410,773,325	208,897,488	207,630,502	440,524,420	526,812,791
Maintenance of equipment	1,468,963,494	2,150,479,800	629,259,544	842,823,275	269,436,201	428,629,179	570,267,749	879,027,346
Depreciation	221,042,945	215,375,553	92,447,339	90,126,386	44,529,643	43,522,644	84,065,963	81,726,523
Retirements	*378,903	*132,261	*114,910	*64,979	*120,586	*77,337	*143,407	10,055
Deferred maintenance and major repairs	*3,712,687	1,852,750	*222,835	165,712	*567,781	2,323,460	*2,922,071	*636,422
Amortization of defense projects	10,162,038	712,656,862	4,418,269	245,134,048	1,532,003	161,693,585	4,211,766	305,829,229
Equalization								
All other	1,241,850,101	1,220,726,896	532,731,681	507,462,108	224,062,922	221,166,827	485,055,498	492,097,961
Traffic	164,744,283	143,910,697	60,069,316	51,471,123	30,961,630	26,999,361	73,713,337	65,440,213
Transportation—Rail line	3,212,244,870	3,014,679,592	1,401,337,059	1,313,948,293	554,425,104	506,555,692	1,256,482,707	1,194,175,607
Transportation—Water line								
Miscellaneous operations	129,319,790	122,193,280	48,859,609	44,852,390	16,979,027	18,454,316	63,481,154	58,886,574
General	232,045,602	210,896,692	92,361,828	86,087,380	45,920,522	41,291,955	93,763,252	83,517,357
Railway operating expenses	6,357,550,669	7,053,079,988	2,658,419,431	2,840,239,854	1,149,019,541	1,278,642,771	2,550,111,697	2,934,197,363
Net revenue from railway operations	1,269,762,725	1,845,528,735	370,393,332	515,661,878	286,532,885	360,741,361	612,836,508	969,125,496
Railway tax accruals	498,573,630	822,311,475	152,101,545	151,524,335	133,967,528	188,636,403	212,504,557	482,150,737
Pay-roll taxes	254,407,977	230,454,324	106,949,663	95,620,977	45,970,417	39,840,459	101,487,897	94,992,888
Federal income taxes	*15,252,735	304,540,975	*53,663,999	*65,759,071	36,196,385	92,499,088	2,214,879	277,800,958
All other taxes	259,418,388	287,316,176	98,815,881	121,662,429	51,800,726	56,296,856	108,801,781	109,356,891
Railway operating income	771,189,095	1,023,217,260	218,291,787	364,137,543	152,565,357	172,104,958	400,331,951	486,974,759
Equipment rents—Dr. balance	113,332,023	130,471,495	52,371,261	55,312,840	*7,148,775	*3,802,853	68,109,537	78,961,508
Joint facility rent—Dr. balance	38,572,348	43,517,570	19,776,039	21,685,471	4,633,419	4,828,552	14,162,890	17,003,547
Net railway operating income	619,284,724	849,228,195	146,144,487	287,139,232	155,080,713	171,079,259	318,059,524	391,009,704
Ratio of expenses to revenues (per cent)	83.4	79.3	87.8	84.6	80.0	78.0	80.6	75.2

* Decrease, deficit or other reverse item.

† Railway operating revenues are after deduction of $8,407,823 for the twelve months ended with December, 1946, and $47,333,297 for the twelve months ended with December, 1945, to create a reserve for land grant deductions in dispute.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

The Throttle MASTER

with FOOT CONTROL *Speeds* SWITCHING

AMERICAN THROTTLE COMPANY
INCORPORATED
60 East 42nd Street, New York 17, N. Y.
122 S. Michigan Avenue, Chicago 3, Ill.

A-1845

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JANUARY OF CALENDAR YEAR 1947

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax-accruals	Net railway operating income 1947	1946
Akron, Canton & Youngstown	Jan.	171	$436,843	$67	$457,999	$69,803	$43,030	$22,527	$131,015	$286,410	62.5	$171,589	$69,519	$84,655	$37,908
Alton	Jan.	959	1,700,657	439,453	2,483,549	389,573	340,814	79,825	966,155	1,929,687	77.7	553,862	250,705	116,426	172,259
Atchison, Topeka & Santa Fe System	Jan.	13,107	27,547,428	4,144,324	34,768,697	4,780,075	6,330,394	703,845	12,199,166	25,580,797	73.6	9,187,900	5,003,893	4,429,698	6,613,820
Atlanta & Saint Andrews Bay	Jan.	82	149,660	1,576	155,909	18,675	14,286	6,218	42,092	91,484	58.7	64,425	28,895	25,469	2,649
Atlanta & West Point	Jan.	93	239,330	68,434	345,817	44,159	49,203	13,202	166,540	295,712	85.5	50,105	25,999	4,335	7,046
Western of Alabama	Jan.	133	241,777	66,397	338,919	48,876	58,763	12,627	147,237	286,720	84.6	52,199	35,052	16,734	24,345
Atlantic Coast Line	Jan.	5,573	8,918,950	2,440,659	12,274,461	2,265,842	1,909,118	274,508	4,805,139	9,785,350	79.7	2,489,111	1,100,000	1,039,369	917,919
Charleston & Western Carolina	Jan.	343	379,765	4,975	393,983	74,574	68,487	12,486	145,569	309,468	78.5	84,515	30,000	49,815	—26,524
Baltimore & Ohio	Jan.	6,193	24,414,217	2,130,935	28,215,489	3,213,313	5,981,932	578,484	11,948,976	22,970,682	81.4	5,244,807	2,301,108	2,735,243	1,258,204
Staten Island Rapid Transit	Jan.	29	160,772	105,205	276,091	48,849	35,211	1,457	156,397	265,965	96.3	10,126	41,775	—51,965	—53,493
Bangor & Aroostook	Jan.	602	1,007,401	49,098	1,087,089	212,342	188,738	7,898	360,747	810,528	74.5	276,561	123,899	158,444	235,449
Bessemer & Lake Erie	Jan.	214	1,036,191	1,515	1,052,182	101,766	438,421	15,351	320,884	923,275	87.7	128,907	188,774	290,587	58,412
Boston & Maine	Jan.	1,762	4,961,071	1,242,281	6,803,372	1,161,800	1,127,435	92,959	3,003,738	5,689,916	83.6	1,113,456	549,436	279,887	489,372
Burlington-Rock Island	Jan.	228	193,637	56,694	272,411	40,123	33,380	4,401	122,096	218,223	80.1	54,188	10,115	—323	21,731
Cambria & Indiana	Jan.	35	160,141	.....	160,201	11,007	92,930	724	22,364	135,498	84.5	24,703	54,478	66,756	87,295
Canadian Pacific Lines in Maine	Jan.	234	530,550	48,643	605,523	76,212	78,785	5,398	236,664	408,563	67.5	196,960	26,925	75,686	103,157
Canadian Pacific Lines in Vermont	Jan.	90	128,518	17,467	170,413	44,911	30,828	3,422	141,110	226,791	133.1	—56,378	15,073	—110,596	—112,051
Central of Georgia	Jan.	1,816	2,073,126	275,292	2,591,435	463,769	486,555	96,392	1,323,258	2,527,313	97.5	64,122	247,527	—191,823	262,176
Central of New Jersey	Jan.	419	2,168,225	418,417	2,868,832	368,603	517,414	48,722	1,610,955	2,712,933	94.6	155,899	374,754	—506,634	—193,658
Central of Pennsylvania	Jan.	213	1,418,019	19,445	1,464,308	115,982	285,297	21,715	493,796	955,752	65.3	508,556	68,774	619,203	49,830
Central of Vermont	Jan.	422	632,000	75,000	760,432	119,109	146,103	11,112	384,602	696,704	91.6	63,728	54,875	—49,022	—67,198
Chesapeake & Ohio	Jan.	3,106	19,303,819	668,900	20,582,898	2,475,837	3,596,024	403,195	6,291,263	13,485,573	65.5	7,097,325	3,582,101	4,191,009	3,623,734
Chicago & Eastern Illinois	Jan.	910	1,729,813	353,929	2,318,307	327,379	479,036	78,653	1,047,796	2,055,234	88.6	263,073	138,800	7,117	29,874
Chicago & Illinois Midland	Jan.	131	643,275	1,000	681,079	74,062	128,287	29,775	196,072	460,122	67.6	220,957	95,658	113,736	77,214
Chicago & North Western	Jan.	8,064	9,785,962	1,936,238	13,297,667	2,022,623	2,618,846	269,149	6,277,197	11,822,727	88.9	1,474,940	1,084,372	143,356	854,296
Chicago, Burlington & Quincy	Jan.	8,868	14,357,994	1,404,396	17,453,340	1,892,638	2,400,015	337,821	5,876,713	11,105,053	63.6	6,348,287	2,916,492	3,130,288	5,194,619
Chicago Great Western	Jan.	1,500	2,146,562	85,377	2,465,932	274,948	344,950	77,668	1,158,258	1,941,117	78.7	524,815	177,705	169,912	—33,796
Chicago, Indianapolis & Louisville	Jan.	541	1,038,163	61,893	1,177,315	266,137	179,523	51,556	496,101	1,059,244	89.9	118,071	79,411	—71,818	18,629
Chicago, Milwaukee, St. Paul & Pacific	Jan.	10,733	14,172,791	1,681,920	17,608,765	2,087,135	2,869,807	347,516	7,838,750	13,985,261	79.4	3,623,504	1,732,000	1,477,161	2,203,988
Chicago, Rock Island & Pacific	Jan.	7,650	11,018,509	1,916,533	14,036,404	1,383,438	2,282,152	396,919	5,440,475	10,180,883	72.5	3,855,521	1,472,901	1,802,674	2,560,755
Chicago, St. Paul, Minn. & Omaha	Jan.	1,616	2,029,903	230,419	2,503,134	342,318	403,650	51,447	1,266,712	2,165,678	86.5	337,456	193,162	32,404	6,317
Clinchfield	Jan.	302	1,585,700	5,822	1,605,091	104,088	227,321	27,668	385,707	769,021	47.9	836,070	144,502	755,003	355,929
Colorado & Southern	Jan.	748	764,460	123,900	981,479	125,581	184,732	21,092	416,382	797,063	81.2	184,416	115,834	44,221	46,374
Ft. Worth & Denver City	Jan.	902	727,227	157,897	982,264	118,320	168,013	31,871	388,358	775,331	78.9	206,933	101,421	121,348	127,766
Colorado & Wyoming	Jan.	42	76,341	.....	142,028	8,442	16,450	733	62,117	92,860	65.3	49,168	31,527	17,743	16,744
Columbus & Greenville	Jan.	168	135,735	2,733	149,362	26,986	30,356	4,706	60,482	136,774	91.6	12,588	12,472	499	709
Delaware & Hudson	Jan.	794	3,857,927	229,466	4,218,740	491,120	920,778	57,670	1,759,516	3,388,751	80.3	829,989	455,943	375,733	422,649
Delaware, Lackawanna & Western	Jan.	973	4,960,611	826,459	6,345,669	667,180	1,088,051	128,904	3,061,833	5,163,254	81.4	1,182,415	597,016	486,733	567,926
Denver & Rio Grande Western	Jan.	2,366	3,439,809	274,167	3,905,769	411,405	989,255	122,004	1,701,958	3,421,190	87.6	484,579	350,571	157,382	705,247
Denver & Salt Lake	Jan.	232	406,557	6,895	423,874	42,172	64,454	4,435	144,365	268,856	63.5	154,918	38,893	156,624	86,422
Detroit & Mackinac	Jan.	230	116,137	1,634	128,976	18,667	12,728	663	35,520	73,322	56.8	55,654	14,942	31,352	22,831
Detroit & Toledo Shore Line	Jan.	50	528,742	.....	532,170	33,602	31,311	10,705	148,622	235,166	44.2	297,004	94,299	107,446	52,469
Detroit, Toledo & Ironton	Jan.	464	1,221,085	909	1,276,023	116,877	171,442	18,859	295,579	632,370	49.6	643,653	250,368	342,257	195,447
Duluth, Missabe & Iron Range	Jan.	547	134,170	2,623	168,455	368,679	397,739	5,229	290,675	1,110,065	659.0	—941,609	70,080	—1,029,293	—905,536
Duluth, Winnipeg & Pacific	Jan.	175	291,000	1,300	297,200	36,301	40,576	2,881	137,458	222,843	75.0	74,357	26,114	15,216	24,641
Elgin, Joliet & Eastern	Jan.	391	2,661,507	8	3,164,694	159,255	396,015	19,445	1,303,014	1,964,488	62.1	1,200,206	467,706	475,263	—30,034

(Table continued on next left-hand page)

H
Hunt-C
sales
Seal F
and c
rings
Air Fu
H

HUNT-SPILLER

Light Weight Valves

LIGHTNESS *does it . . .*

LIGHTNESS means less wear, better efficiency, more economy, lower maintenance. Lightness in valve and piston components pays dividends any way you look at it. But lightness is not all. Simplicity is another thing to look for, and Hunt-Spiller Light Weight Steel Valves have it. Designed to facilitate packing renewal, packing and bull rings are held by follower rings held by four heat treated studs and nuts at each end. It is not necessary to loosen or remove the rod.

Let the Hunt-Spiller representative explain the advantages of Hunt-Spiller Light Weight Steel Valves . . . and alloy steel pistons too. Hunt-Spiller Mfg. Corporation, 383 Dorchester Ave., Boston 27, Mass. In Canada: Jos. Robb & Co., Ltd., 4050 Namur St., Montreal 16, P.Q. Export Agents, International Ry. Supply Co., 30 Church St., New York 7, N. Y.

Hunt-Spiller are exclusive railroad sales representatives for Double Seal Piston Rings made for Diesel and other services. Double Seal rings are cast from Hunt-Spiller *Air Furnace* Gun Iron.

HUNT-SPILLER

LIGHT WEIGHT
STEEL PISTONS AND VALVES
DUPLEX SECTIONAL PACKING
AIR FURNACE GUN IRON

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JANUARY OF CALENDAR YEAR 1947—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax-accruals	Net railway operating income 1947	1946
Erie	Jan.	2,229	$10,526,946	$559,118	$11,850,142	$1,076,505	$2,253,146	$246,955	$5,359,036	$9,468,525	79.9	$2,381,617	$1,085,494	$836,033	$807,121
Florida East Coast	Jan.	682	1,848,324	994,352	3,105,022	394,039	407,894	59,741	1,061,199	2,094,661	67.5	1,010,361	303,617	562,318	688,450
Georgia Railroad	Jan.	328	591,282	34,929	666,090	78,385	125,000	26,187	353,773	608,962	91.4	57,128	49,103	21,803	—38,713
Georgia & Florida	Jan.	408	196,651	3,005	205,086	56,088	29,154	11,674	84,432	189,925	92.6	15,161	15,850	—14,064	—2,155
Grand Trunk Western	Jan.	972	3,068,000	186,000	3,443,000	465,070	567,743	47,606	1,602,065	2,810,880	81.6	632,120	253,992	261,982	—140,184
Canadian Nat'l Lines in New England	Jan.	172	175,000	9,000	192,600	54,780	32,048	2,457	114,982	211,840	110.0	—19,240	25,558	—71,697	—67,298
Great Northern	Jan.	8,332	11,117,298	754,573	12,820,824	2,274,296	2,669,716	302,540	5,337,032	11,120,209	86.7	1,700,615	1,331,805	311,040	1,039,234
Green Bay & Western	Jan.	234	224,406	41	230,285	40,599	33,183	13,769	83,498	183,405	79.6	46,880	26,456	10,444	19,788
Gulf, Mobile & Ohio	Jan.	1,945	3,000,524	97,987	3,205,256	541,512	568,499	106,212	1,024,512	2,393,014	74.7	812,242	327,144	276,887	256,601
Illinois Central (System)	Jan.	6,582	15,641,537	2,122,841	19,487,847	2,952,284	3,318,901	343,619	7,308,375	14,779,533	75.8	4,708,314	2,391,123	1,964,659	1,342,269
Illinois Terminal	Jan.	476	745,332	132,205	965,459	123,804	130,101	25,802	350,417	663,498	68.7	301,961	132,840	141,466	99,430
Kansas City Southern	Jan.	890	2,442,308	90,747	2,750,757	338,722	357,002	71,891	885,839	1,759,610	64.0	991,147	305,000	536,866	423,522
Kansas, Oklahoma & Gulf	Jan.	328	386,861	1,277	392,791	22,689	28,892	13,890	104,147	183,919	46.8	208,872	81,306	95,681	78,941
Lake Superior & Ishpeming	Jan.	156	55,549	93	58,155	26,161	44,715	1,515	37,603	118,268	203.4	—60,113	24,074	—78,068	—80,482
Lehigh & Hudson River	Jan.	96	276,310	.....	277,389	36,507	39,225	6,838	97,043	188,749	68.0	88,640	34,748	31,647	17,640
Lehigh & New England	Jan.	193	523,591	.....	531,416	65,389	92,296	11,161	185,497	379,674	71.4	151,742	78,554	86,763	77,265
Lehigh Valley	Jan.	1,254	5,331,437	411,138	6,158,253	714,931	977,468	130,139	2,859,076	4,926,144	80.0	1,232,109	473,908	623,099	643,288
Louisiana & Arkansas	Jan.	756	1,151,060	45,067	1,248,348	167,483	132,308	38,530	392,668	773,519	62.0	474,829	194,004	203,951	154,663
Louisville & Nashville	Jan.	4,768	13,364,798	1,357,107	15,725,023	2,062,447	3,191,509	272,190	6,540,490	12,637,287	80.4	3,087,736	2,126,147	1,553,233	2,141,630
Maine Central	Jan.	988	1,661,658	170,521	1,951,988	330,287	316,987	17,200	824,469	1,550,782	79.5	401,206	153,777	158,799	150,520
Midland Valley	Jan.	334	152,029	21	154,679	20,008	12,653	3,143	48,144	90,365	58.4	64,314	33,872	26,615	16,623
Minneapolis & St. Louis	Jan.	1,408	1,308,180	12,419	1,372,238	203,756	224,425	86,225	472,401	1,063,991	77.5	308,247	179,941	127,391	63,835
Minneapolis, St. Paul & S. S. Marie	Jan.	3,224	1,910,506	101,378	2,163,914	387,768	438,093	51,900	1,094,666	2,057,961	95.1	105,953	188,189	—54,483	—18,733
Duluth, South Shore & Atlantic	Jan.	530	330,361	12,245	363,156	75,970	68,625	14,792	168,994	338,070	93.1	25,086	25,227	—6,059	11,413
Spokane International	Jan.	152	141,009	1,996	153,794	33,001	16,015	4,350	53,868	114,552	74.5	39,242	17,199	10,996	10,937
Mississippi Central	Jan.	148	140,895	300	145,594	36,334	18,011	10,888	39,215	111,944	76.9	33,650	14,873	4,386	—1,924
Missouri & Arkansas	Jan.	365	1,486	124	7,211	8,099	3,270	596	4,561	20,221	280.4	—13,010	1,329	—14,193	—35,395
Missouri-Illinois	Jan.	172	274,497	352	279,996	36,942	36,673	6,850	79,156	167,123	59.7	112,873	49,955	54,710	45,877
Missouri-Kansas-Texas Lines	Jan.	3,253	4,088,163	409,010	4,974,611	711,335	776,416	200,380	2,100,139	4,054,457	81.5	920,154	411,609	252,059	684,033
Missouri Pacific	Jan.	7,037	13,270,168	1,455,062	16,063,613	2,084,773	2,757,685	369,187	6,198,458	12,012,033	74.8	4,051,580	1,377,566	2,155,569	2,038,976
Gulf Coast Lines	Jan.	1,734	3,000,403	98,568	3,261,597	616,412	362,474	67,745	1,125,224	2,277,203	69.82	984,394	178,145	484,910	831,441
International-Great Northern	Jan.	1,110	1,788,154	237,619	2,279,130	432,964	349,070	45,794	1,036,645	1,988,888	87.3	290,242	129,441	9,312	209,788
Monongahela	Jan.	170	680,966	1,260	686,124	61,852	64,119	745	192,801	323,693	47.2	362,431	66,785	1,931,140	127,937
Montour	Jan.	51	300,816	.....	302,866	18,436	66,615	1,100	110,508	205,826	68.0	97,040	59,144	68,716	58,051
Nashville, Chattanooga & St. Louis	Jan.	1,052	2,024,929	245,713	2,537,052	350,398	447,934	98,897	1,088,382	2,074,819	81.8	462,233	267,597	168,709	143,642
New York Central	Jan.	10,746	39,508,093	10,779,372	55,995,504	6,036,036	11,693,788	874,410	26,088,898	47,393,988	84.6	8,601,516	5,021,528	2,161,290	998,541
Pittsburgh & Lake Erie	Jan.	223	2,773,788	89,215	2,968,496	373,527	895,321	58,569	1,124,727	2,595,206	87.4	373,290	485,025	436,603	174,580
New York, Chicago & St. Louis	Jan.	1,687	7,170,408	146,405	7,489,902	930,497	1,162,159	178,489	2,705,588	5,244,541	70.0	2,245,461	880,993	951,587	577,477
New York, New Haven & Hartford	Jan.	1,838	6,917,366	4,482,579	12,686,288	1,776,798	1,959,615	232,681	5,719,556	10,650,188	84.0	2,036,100	975,000	17,521	815,610
New York Connecting	Jan.	21	175,187	.....	190,591	45,205	27,400	.....	73,780	148,752	78.0	41,839	65,823	34,913	135,409
New York, Ontario & Western	Jan.	547	599,287	2,260	657,876	96,701	112,135	25,547	352,566	613,801	93.3	44,075	49,949	—82,051	—109,060
New York, Susquehanna & Western	Jan.	120	252,676	42,060	313,637	42,127	38,187	4,713	148,341	253,551	80.8	60,086	36,096	—3,540	28,879
Norfolk & Western	Jan.	2,130	12,935,096	643,325	13,966,368	1,608,912	2,646,103	208,459	3,977,135	8,851,055	63.4	5,115,313	2,789,125	3,013,802	3,177,040
Norfolk Southern	Jan.	727	708,688	4,544	733,937	146,855	79,949	40,663	280,018	587,520	80.1	146,417	60,648	41,010	48,548
Northern Pacific	Jan.	6,921	9,736,302	678,872	11,317,790	1,810,577	2,187,068	208,947	4,328,122	9,171,021	81.0	2,146,769	1,367,018	1,247,707	1,539,553

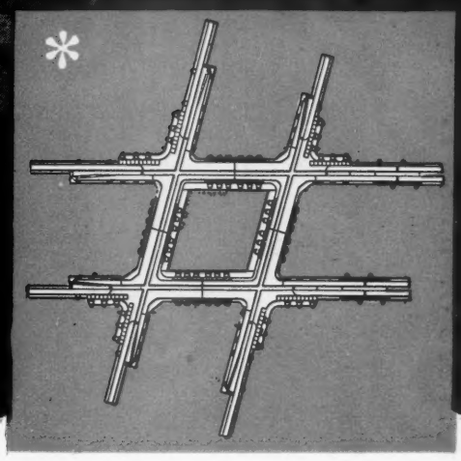
(Table continued on next left-hand page)

ONLY
Br
AMERI
PRODUCT
BRAKE S
RESEA

*Solid Manganese Steel CROSSINGS

Depth Hardened

PRODUCT BRAKE SHOE RESEARCH



Smoother riding . . .

Under heavy traffic conditions RACOR solid manganese steel depth hardened crossings of integral base design, provide and maintain a smooth joint connection between rails and crossing castings. Reinforced with a continuous base, these crossings distribute the full traffic impact uniformly on crossing plates or timbers. Racor's DEPTH HARDENING process of tread surfaces, greatly retards batter at intersections — reduces crossing and equipment maintenance.

RACOR TRADE MARK REGISTERED

AMERICAN Brake Shoe COMPANY

Pioneers in the development and manufacture of

DEPTH HARDENED CROSSINGS	SAMSON SWITCH POINTS
AUTOMATIC SWITCH STANDS	VERTICAL SWITCH RODS
MANGANESE STEEL GUARD RAIL	REVERSIBLE MANGANESE STEEL CROSSINGS

World's most complete line of Track Specialties

Ramapo's greater experience and facilities are ready to serve you

RAMAPO AJAX DIVISION

332 So. Michigan Ave., Chicago 4, Illinois

ONLY RAMAPO HAS PLANTS FROM COAST TO COAST TO EXPEDITE AMERICA'S RAILROAD NEEDS

NEW YORK, N. Y. • HILLBURN, N. Y. • NIAGARA FALLS, N. Y. • WASHINGTON, D. C. • ST. LOUIS, MO. • EAST ST. LOUIS, ILL. SUPERIOR, WIS. • DENVER, COLO. • PUEBLO, COLO. • LOS ANGELES, CALIF. • HOUSTON, TEXAS • SEATTLE, WASHINGTON

CANADIAN RAMAPO IRON WORKS, LTD., NIAGARA FALLS, ONT.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JANUARY OF CALENDAR YEAR 1947—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax-accruals	Net railway operating income: 1947	1946
Northwestern Pacific	Jan.	331	$515,601	$10,419	$545,826	$108,407	$69,292	$3,498	$230,478	$420,372	77.0	$125,454	$37,968	$54,575	—$164,863
Oklahoma City-Ada-Atoka	Jan.	132	84,450	.....	86,510	17,678	—3,937	1,052	24,748	42,693	49.4	43,817	13,742	16,443	17,653
Pennsylvania	Jan.	10,116	51,666,979	14,533,369	71,981,893	7,173,731	16,777,285	1,074,932	35,833,149	63,869,818	88.7	8,112,075	6,694,210	263,798	2,547,545
Long Island	Jan.	376	993,956	2,023,873	3,269,123	469,272	621,870	54,671	2,028,444	3,253,662	99.5	15,461	474,287	—803,547	—315,681
Pennsylvania-Reading Seashore Lines	Jan.	390	448,911	233,681	711,784	188,052	128,939	9,593	515,635	868,396	122.0	—156,612	103,348	—369,340	—413,490
Pere Marquette	Jan.	1,950	4,547,727	221,590	5,024,575	731,236	859,179	101,773	2,118,691	4,045,784	80.5	978,791	449,497	310,934	215,750
Pittsburg & Shawmut	Jan.	97	185,986	.....	187,793	20,647	27,678	2,244	58,403	116,462	62.0	71,331	6,740	54,931	39,759
Pittsburgh & West Virginia	Jan.	136	476,969	.....	496,734	78,871	105,429	32,775	128,061	375,565	75.6	121,169	67,659	88,520	18,402
Pittsburg, Shawmut & Northern	Jan.	122	68,142	.....	68,767	12,442	13,849	1,170	26,408	60,342	87.7	8,425	5,136	—3,592	—7,661
Reading	Jan.	1,358	8,439,076	607,308	9,597,179	1,286,353	1,798,018	116,168	3,833,989	7,280,399	75.9	2,316,780	1,152,637	1,063,080	761,106
Richmond, Fredricksburg & Potomac	Jan.	118	1,270,052	741,531	2,217,795	191,178	304,339	15,649	862,276	1,493,417	67.4	724,378	327,080	308,322	456,128
Rutland	Jan.	407	328,615	47,389	460,594	82,836	113,191	15,202	303,138	534,065	116.0	—73,471	38,706	—127,928	—55,448
St. Louis-San Francisco	Jan.	4,645	6,827,813	658,038	8,141,028	1,180,756	1,601,765	201,648	3,478,605	6,834,152	83.9	1,306,876	784,987	566,687	779,498
St. Louis, San Francisco & Texas	Jan.	160	248,093	16,230	278,933	43,920	38,197	13,490	147,587	252,805	90.6	26,128	16,066	—16,040	88,895
St. Louis Southwestern Lines	Jan.	1,575	3,913,221	82,714	4,135,339	522,258	410,111	120,080	1,282,434	2,483,474	60.1	1,651,865	677,712	834,242	338,767
Seaboard Air Line	Jan.	4,156	8,384,702	1,948,478	11,102,411	1,492,604	1,817,606	272,679	4,302,980	8,442,095	76.0	2,660,316	1,000,900	1,145,164	1,734,411
Southern Railway	Jan.	6,484	15,778,401	2,073,855	19,069,385	2,814,368	3,581,664	317,704	7,400,754	14,857,451	77.9	4,211,934	1,958,765	1,771,322	2,656,690
Alabama Great Southern	Jan.	316	1,119,746	191,359	1,395,088	205,514	322,948	28,883	495,216	1,106,174	79.3	288,914	183,231	134,484	103,597
Cinn., New Orleans & Texas Pacific	Jan.	337	2,319,436	275,548	2,745,880	308,901	589,821	42,281	872,997	1,918,262	69.9	827,618	447,331	455,323	302,368
Georgia Southern & Florida	Jan.	397	377,038	99,725	523,838	102,511	53,802	6,797	208,113	391,728	74.8	132,110	48,694	50,920	57,665
New Orleans & Northeastern	Jan.	204	742,750	69,935	861,896	120,699	107,690	17,963	246,793	527,925	61.3	333,971	146,757	142,767	105,038
Southern Pacific	Jan.	8,228	26,459,312	4,399,739	33,483,512	3,829,807	5,923,523	624,911	13,593,368	26,017,396	77.7	7,466,116	3,534,700	2,653,727	2,973,227
Texas & New Orleans	Jan.	4,320	7,047,986	1,046,438	8,729,378	1,203,132	1,066,112	188,144	3,443,633	6,359,539	72.9	2,369,839	1,058,473	885,546	1,428,471
Spokane, Portland & Seattle	Jan.	944	1,618,949	60,428	1,796,102	306,697	193,868	17,972	660,834	1,261,137	70.2	534,965	161,411	239,693	—37,691
Tennessee Central	Jan.	286	330,300	8,783	359,362	75,317	78,116	9,617	151,718	330,272	91.9	29,090	31,324	—21,734	—29,164
Texas & Pacific	Jan.	1,873	3,518,390	537,765	4,495,807	649,981	662,253	144,581	1,731,566	3,483,490	77.5	1,012,317	328,048	531,442	789,014
Texas Mexican	Jan.	162	174,423	83	202,917	25,912	20,987	4,236	54,349	117,101	57.7	85,816	18,373	53,169	34,936
Toledo, Peoria & Western	Jan.	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....
Union Pacific System	Jan.	9,775	24,937,644	3,839,972	31,412,909	3,641,038	5,126,662	678,427	11,800,103	23,083,435	73.5	8,329,474	4,225,235	3,050,488	3,875,161
Utah	Jan.	111	214,203	.....	214,244	30,602	44,032	685	77,467	159,510	74.5	54,734	28,412	26,932	16,905
Virginian	Jan.	661	3,224,558	5,462	3,321,574	280,351	641,738	35,059	686,750	1,715,695	51.7	1,605,879	724,000	983,161	650,066
Wabash	Jan.	2,393	6,551,623	469,486	7,527,018	855,147	1,082,937	209,008	2,945,138	5,382,395	71.5	2,144,623	861,968	911,198	614,360
Ann Arbor	Jan.	294	589,112	4,130	602,113	63,190	118,225	20,169	272,494	489,202	81.2	112,911	57,390	50,350	33,049
Western Maryland	Jan.	837	3,225,923	15,848	3,380,961	389,358	582,731	62,844	1,105,044	2,262,079	66.9	1,118,882	510,000	642,547	573,900
Western Pacific	Jan.	1,195	2,673,151	192,901	2,956,492	489,187	618,760	123,481	1,156,644	2,552,060	86.3	404,432	225,719	134,021	678,251
Wheeling & Lake Erie	Jan.	505	2,088,822	.....	2,151,800	213,067	353,919	54,426	678,878	1,358,159	63.1	793,641	460,186	529,599	316,421
Wisconsin Central	Jan.	1,051	1,739,104	40,882	1,922,197	226,731	309,998	47,733	877,201	1,533,769	79.8	388,428	143,519	162,141	165,719

Yo
rel
me
Ry
str
ste
pr
me
ev
of

Wheeling & Lake Erie	Jan.	505	2,088,822	40,882	2,151,800	213,067	353,919	54,426	678,878	1,358,159	63.1	793,641	460,186	529,599	316,421
Wisconsin Central	Jan.	1,051	1,739,104		1,922,197	226,731	309,998	47,733	877,201	1,533,769	79.8	388,428	143,519	162,141	165,719

Steel in Stock for Railroad Requirements

You can depend on Ryerson Steel for rugged reliability in every railway job. In new equipment, on maintenance of way and moving stock, Ryerson Steels give top performance under the stress of heavy loads and fast, steady traffic.

After more than 100 years in the business of steel service the Ryerson organization has a practical knowledge of every railroad requirement. This experience is at your service whenever you call and may help solve some problem of today's steel shortage.

To contact Ryerson for steel is to call for the experience of experts. And whether your order is large or small, you are assured of the same prompt, personal consideration.

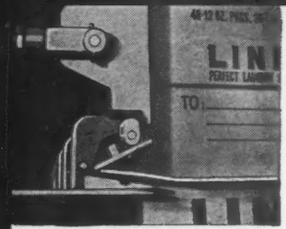
So supplement your stores from the nearby Ryerson Plant. If the steel you need is not readily available from stock, everything possible will be done to find the alternate that will keep your rolling stock moving on schedule.

Joseph T. Ryerson & Son, Inc. Steel Service Plants at: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles.

RYERSON STEEL

"SENSATIONAL!" was the word . . .

PUL-PAC IN POSITION TO TAKE LOAD



1

2

GRIPPER JAWS TAKE HOLD OF BOARD

3

PULLING THE LOAD ONTO CARRIER PLATE

4

LOAD IN POSITION FOR TRANSPORTING

5

LOAD IN FREIGHT CAR FOR SHIPMENT

. . . used by Top-Management men to describe the new "PUL-PAC" method introduced at the National Material Handling Exposition by CLARK TRUCTRACTOR.

Why? . . BECAUSE IT . .

- √ employs an inexpensive load base of paper, fiberboard or similar material
- √ makes possible maximum utilization of storage space
- √ reduces shipping costs
- √ handles assembled units on original load base through the entire movement cycle
- √ There are many other reasons — just write

CLARK TRUCTRACTOR

Division of CLARK EQUIPMENT COMPANY

BATTLE CREEK, MICHIGAN

OTHER PLANTS — BUCHANAN, JACKSON, BERRIEN SPRINGS, MICHIGAN

Other CLARK Products

FORK LIFT TRUCKS		ELECTRIC STEEL CASTINGS
TOWING, DUMP AND	DRILLS	METAL SPOKE WHEELS
SHOVEL TRACTORS	& GEARS	AXLES & HOUSINGS
RAILWAY TRUCKS		TRANSMISSIONS

Prices on CLARK products will not be advanced in excess of increased costs.

585 (adv. p. 58)

News Department

CONTINUED

Accident Report Condemns Welding of Journal

Reporting on an Apache Railway accident found to have been caused by the failure of a tender-truck journal that had been built up by fusion welding, the Interstate Commerce Commission has taken occasion to issue a strong condemnation of such practice.

The Apache is a 72-mile line in Arizona, and the report by Commissioner Patterson follows a Bureau of Locomotive Inspection investigation of a February 3 derailment which resulted in the death of a fireman and brakeman and the serious injury of an engineer.

"The prohibitions of application of fusion welding on axles and the necessity, in the interest of safety, of removing from service any axles that are found to have had such welding applied, are so well known and understood that discussion of this pernicious practice, which has been universally long recognized as destructive to life and property, would here be redundant," the report said. "Freedom from accidents caused by application of fusion welding to members of assemblages that are ordinarily adversely affected thereby and which are concealed by related parts when assembled, such as wheel fits and journals, depends practically wholly upon the competency or integrity of those to whom the making of repairs is entrusted since no inspection methods short of disassembly will disclose the unsafe conditions."

The accident occurred near Snowflake, Ariz., the train involved being a freight consisting of a locomotive and 24 cars moving at an estimated speed of 12 m.p.h.. The derailment came when the No. 2 axle of the front tender truck broke and the back corner of the truck dropped to the track. The locomotive, tender and first car were derailed and turned over, coming to rest on the slope of an embankment. The locomotive cab was crushed and steam pipes in the cab were broken. Approximately 25 minutes elapsed before the cab could be entered, and the bodies of the brakeman and fireman were then found "trapped between the overhang of the cab roof and the front of the tender," their deaths "apparently" having been caused by scalding. The engineer escaped by climbing through the right cab window and the rear brakeman, who was also in the cab, climbed out over the side of the tender.

The locomotive built in 1919 was of the 2-8-2 type with a tractive force of 36,500 lb. and a total weight in working order of 179,000 lb. The capacity of the tender was 6,500 gal. of water and 2,550 gal. of fuel oil, and its weight in working order was 153,000 lb. It had two 4-wheel arch-bar trucks with journal boxes for axles 5½ in. by 10 in.

Examination of parts involved in the accident disclosed that the left journal of the No. 2 axle of the front tender truck was broken off of the fillet. As the report described it, "approximately 75 per cent

of the cross-sectional area was a progressive fracture which extended around the entire circumference of the journal at the junction of the journal and fillet and inwardly from the surface of the journal," the remainder of the break being new. The journal and brass remained in the box "and there was no evidence of cutting or overheating."

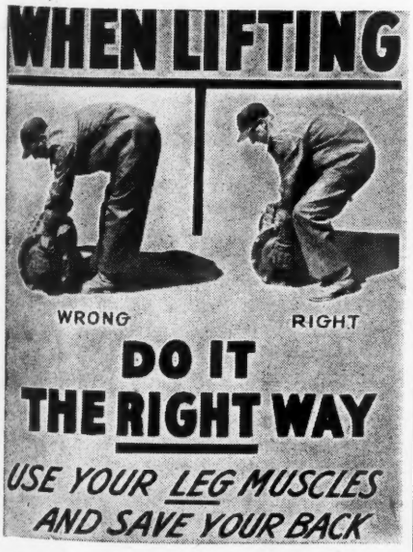
"The journal, including the fillet," the report continued, "had been built up by fusion welding and the deposited metal had been machined to a smooth surface. The diameter of the journal was 5 15/16 in. Stenciling on the axle indicated that it was first placed in use in 1919. No record of subsequent use or repairs was obtainable. The locomotive received last annual inspection and repairs. . . on September 3, 1946. . . . The last monthly inspection was made . . . on January 3, 1947. Daily inspection and repair reports on file for 60 days preceding the accident were examined and these did not show anything reported that would have a bearing on this accident."

In leading up to its condemnation of fusion welding on axles, the report recalled that a previous accident "of like nature" occurred October 13, 1939, also on the Apache. No deaths or serious injuries resulted from that derailment which was caused by the failure of a tender-truck axle "to which fusion welding had been applied to build up the wheel fit."

January Truck Traffic

Motor carriers reporting to the American Trucking Associations transported in January 2,280,244 tons of freight, an increase of 0.3 per cent over the 2,272,691 tons transported in December, 1946, an increase of 19.5 per cent in the January, 1946, total of 1,908,325 tons. The A. T. A. index figure, based on the 1938-40 average monthly tonnage of the reporting carriers, was 196.3 for January, as compared with 189 for the previous month.

The January figures, according to the



The March installment (Poster No. 282) of the "All the Year-Every Year-Safety Program" being distributed by the A.A.R.

THE MASTER OF FLAME
ANSUL
REG. U.S. PAT. OFF.
FIRE EXTINGUISHING EQUIPMENT
DuGas

DRY CHEMICAL
FIRE EXTINGUISHERS

New...

Faster Put-out by Inexperienced Operators

The difference between a small fire and a major disaster may be only a matter of seconds . . . WHEN THE FIRE STARTS.

An outstanding feature of the new Ansul-Dugas Extinguisher is its simple and quick operation. The new nozzle design makes expert extinguishing possible even by inexperienced persons.

HERE ARE OTHER IMPORTANT FEATURES

- 53% more Fire-Stopping Power.
- Highest Rating for SPEED and EFFECTIVENESS as determined by impartial authority.*
- Quicker, easier, on-the-spot recharge after use.
- Greater fire-fighting effectiveness pound for pound, dollar for dollar.
- Larger range stream and greater shielding of heat from operator.
- Increased fire-fighting capacity without increased weight.
- Engineered to resist corrosion.

STOP FIRE FASTER!
with Ansul-Dugas Dry Chemical Extinguisher

*Write for charts based on authoritative data of comparative ratings as determined by a national approval agency.

ANSUL CHEMICAL COMPANY
FIRE EXTINGUISHER DIVISION, MARINETTE, WISCONSIN

If you have HIGH TIDE...

..Or a FISH POND in your BASEMENT...

Use STONTITE

Return the coupon for FREE FOLDER . . . no obligation.

STONHARD COMPANY

Building Maintenance Materials

Serving the Railroads Since 1922

881 Terminal Commerce Bldg.
Philadelphia 8, Penna.

STONHARD COMPANY
881 Term. Com. Bldg., Phila. 8, Pa.
Send us a free copy of the folder including details about STONHARD STONTITE.

Firm .....
Mr. ..... Title .....
Address .....
City ..... Zone .... State .....

A. T. A., are based on comparable reports from 248 carriers in 39 states. Carriers in the Eastern district reported tonnage increases of 0.1 per cent over December, 1946, and 20.7 per cent over January, 1946; carriers in the Southern region reported a decrease of 3.2 per cent below December, 1946, but an increase of 10.1 per cent over January, 1946, while carriers in the Western district reported increases of 1.8 per cent and 20.2 per cent, respectively.

State Body Calls Long Island's Facilities Inadequate

The Long Island's passenger-carrying facilities are not sufficient to provide adequate service, according to a report released on March 10 by the New York Public Service Commission. The railroad was ordered by the commission to make, and have ready by April 1, an immediate survey of all its equipment.

Hearings will be held on March 24 to determine whether the Long Island can afford to buy 49 new cars, the maximum number it can use under existing physical conditions, it was said.

Chicago Industries Say Cars Move Too Slowly

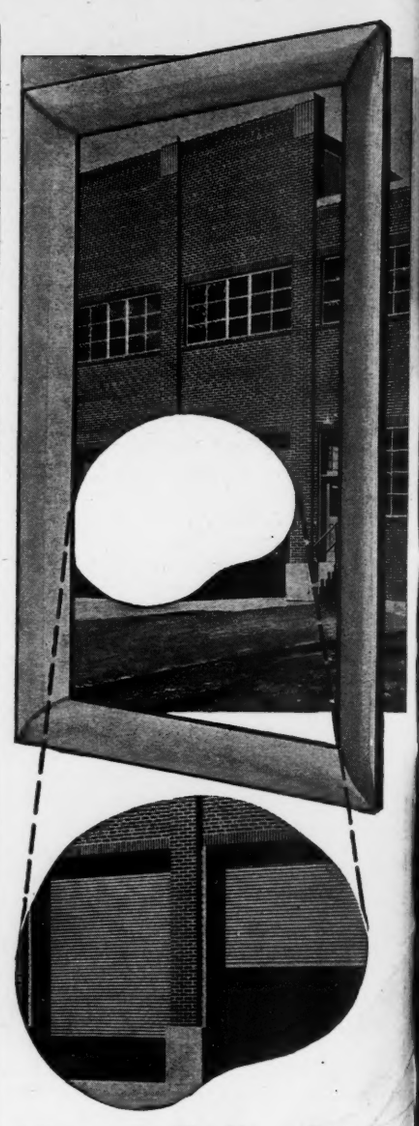
"At least one-half of the shippers in the Chicago metropolitan district are not getting an adequate supply of railroad cars to meet their daily requirements and pratically all shippers are encountering delays in the transit time of freight," the Chicago Association of Commerce & Industry asserted in a report issued to the press last week, which followed a "freight traffic survey" in that area.

Continuing, the association's report charged that daily shortages "ranging from 10 to 60 per cent of freight car requirements" was revealed in replies to a questionnaire sent to its industrial traffic council, representing "approximately 85 per cent of the freight traffic moving into and out of the Chicago district."

The association declared that the conditions revealed by the survey are as follows: (1) delays are experienced in the placement of cars for both loading and unloading; (2) five to 10 per cent of the cars placed at the disposal of companies are not in usable condition for the purpose for which they are needed; (3) substantial delays in the average time in transit of both inbound and outbound carload shipments are incurred with the majority of companies asserting that shipments are "twice as long in transit as before the war."

The companies participating in the survey, according to the report, are maintaining their loading and unloading operations on a "six-day-a-week" basis to help the railroads get the maximum use of their rolling stock.

The report stated that the most critical shortage is in box cars, but that there is an insufficiency of all types of rolling stock. "Continuation of the shortage for a prolonged period," it concluded, "will result in serious production cuts."



Kinnear Rolling Doors Complete the Picture

You can be sure of fullest efficiency at every doorway when you install Kinnear Rolling Doors. Their coiling upward action saves floor and wall space. The doors remain out of the way and safe from damage when opened. All-steel construction brings extra protection and longer life. For added speed and convenience, motor operation may be incorporated, with any number of extra control stations at remote points. Write for details on Kinnear Rolling Doors.

The KINNEAR Manufacturing Company
***Factories:* 2020-40 Fields Ave., Columbus 16, O.**
1742 Yosemite Ave., San Francisco 24, Calif.
(Offices and Agents in all Principal Cities)

Saving Ways in Doorways
KINNEAR ROLLING DOORS